

**AN EXPLORATION OF TRANSFORMATION THEORY  
AND THE WESTERN TRADITION:  
A CRITICAL EVALUATION OF A GRADUATE STUDIES CLASS**

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## **ABSTRACT**

This qualitative study is an exploration of transformation theory, the Western tradition, and a critical evaluation of a graduate studies class at a university. It is an exploration of assumptions that are embedded in experience, that influence the experience and provide meaning about the experience.

An attempt has been made to identify assumptions that are embedded in Western experience and connect them with assumptions that shape the graduate class experience. The focus is on assumptions that facilitate and impede large group discussions. Jungian psychology of personality type and archetype and developmental psychology is used to analyze the group experience.

The pragmatic problem solving model, developed by Knoop, is used to guide thinking about the Western tradition. It is used to guide the analysis, synthesis and writing of the experience of the graduate studies class members.

A search through Western history, philosophy, and science revealed assumptions about the nature of truth, reality, and the self. Assumptions embedded in Western thinking about the subject-object relationship, unity and diversity are made explicit. An attempt is made to identify Western tradition assumptions underlying transformation theory.

The critical evaluation of the graduate studies class experience focuses upon issues associated with group process, self-directed learning, the educator-learner transaction and the definition of adult education. The advantages of making implicit assumptions explicit is explored.

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## **CHAPTER ONE: THE PROBLEM**

This is a qualitative study of the experience of a graduate studies class at a university. It is an exploration of hidden assumptions that influence the meaning of the experience. It is inspired by transformation theory, a new theory in the field of adult education.

### **Background of the Problem**

In the late fall of 1991, I began searching for new ways to think about adult experience and education.

In the course of my search I met with Dr. Patricia Cranton, Professor of Adult Education at Brock University. Dr. Cranton advised that Dr. Mezirow's work on the transformative dimensions of adult learning represented one of the most recent trends in adult education and would be most worthwhile considering in my search. Dr. Jack Mezirow is chairman of the Department of Higher and Adult Education, Teachers College, Columbia University.

Mezirow's insights and ideas compelled me. They were radically different to anything that I had previously encountered. They held promise. Mezirow encouraged an exploration beneath the surface of life experience for assumptions that shaped the meaning of experience. Further, he encouraged, by changing our assumptions, we could change our experience.

These insights and ideas reached down to the very root of the curiosity prompting my search for new ways to think about adult education and experience: a curiosity that had been growing for several years.

### **The Search: Early Promptings**

The search for new ways to think about adult education arose from my experience with an interdisciplinary team in a university teaching hospital setting. The position I held defined my role as coordinator of the team, and required a background in nursing.

It was a privilege working with this team as each member was dedicated to the team's mission and cherished the idea of working together. Working together, however, proved to be an enormous struggle. We had difficulty coming to consensus. Territorialism occurred within and among disciplines. Corporate and government policies, procedures, and decisions constrained and at times discouraged us. Some with power and privilege in the group vetoed team efforts. Others with creativity and imagination were silent or occasionally silenced at team meetings.

We invited consultants to join us, help diagnose our problems and generate new and innovative ways to overcome them. The team would provide the consultants with the signs and symptoms of the problems; the consultants, in turn, would assist with the generation of new approaches. We would return from workshops and retreats invigorated and ready to try the new ideas. Invariably, we would return to our old habits. We knew we had not reached root causes of our problems, or defined the problems.

Upon reflecting on our difficulties, we often remarked that our basic training did not include preparation for our own growth and development as professionals. Likewise, it did not prepare us to work in teams. Further, it did not prepare us to work in a world of rapid change, chaos, and recession.

My curiosity to understand this experience energized me to return to school as a graduate student in education.

### **Transformative Dimensions of Adult Learning: Curiosity Heightened**

Transformative theory simply acted to heighten my curiosity. The theory suggests that we are not "caught in our histories" (Mezirow, 1991b, p.1). It is possible to change the assumptions or preconceptions that we have acquired throughout our life experience. Preconceptions that limit the way we view the world can be transformed. Consequently, our future can be different.

Learners are encouraged to "look critically at their beliefs and behaviors, not only as these appear at the moment but in the context of their history (purpose) and consequences in the learners' lives" (Mezirow, 1991b, p. 197).

Transformation theory, however appealing, deeply disoriented me. On the one hand, it held forth the idea of understanding our preconceptions and their consequences which appealed to me. On the other hand, I could not articulate my own preconceptions or those underlying educational groups of which I was now a part.

Transformation theory offered a constellation of theories within which to consider one's experiences. I did not understand why the particular theories were chosen or why the theories were important or relevant today.

It was with this acutely heightened curiosity and added disorientation that I began the literature review and the research project. My determination became not only to understand adult experience more deeply but also to understand this new approach to adult education.

### **The Literature Review**

The scope of the literature review burgeoned as I attempted to understand transformation theory.

### **Reading about Transformation Theory**

I began reading Mezirow's work starting with his study in 1978. This appeared to mark the beginning of his research and development of transformation theory. I ended with the two books published in 1991, one edited, the other authored.

### **The Reality of Transformation Theory**

The initial research study, "Education for Perspective Transformation: Women's Re-Entry Programs in Community Colleges (1978)" introduced me to the wide range of theories transformation theory derives from, as Mezirow (1978) writes"

it is echoed in the rich literature of existentialism and phenomenology, psychoanalytic theory, developmental psychology, and constructionist theory in sociology, as well as in the perspectivism of Thomas Kuhn and Michel Foucault, the writings of Hegel, of the early Marx, of Paulo Freire, and of the psychologically oriented critical theorists. (p. 55)

This impressive list continued to grow as I followed through the works collected up to 1991, (1981, 1984, 1985a, 1985b, 1989, 1991a, 1991b, 1991c). It included sociologist and philosopher Jurgen Habermas, philosopher and educator John Dewey, other philosophers such as



Ludwig Wittgenstein, Gregory Bateson, Edward Cell, Noam Chomsky, Maxine Greene, psychologists such as Jean Piaget, Lawrence Kohlberg, and psychiatrists such as Ronald D. Laing, Roger Gould and many others. It became quickly apparent that transformation theory was not a theory on its own accord, it was deeply interconnected to a constellation of theories and I began to question why.

### **New Understandings about Transformation Theory**

The answer to the question "Why?" unfolded as I began to read some of the theories from which transformation theory was derived or with which it was connected.

The many and diverse authors talked about similar themes. They talked about subject-object relationships, the growth and development of science, technology, and bureaucracies, the problem with ethics and communicating with one another today, the changing view of the self, and the fact that we had not achieved the goals of the Enlightenment.

These authors, including Mezirow, had an excellent understanding of the assumptions that had shaped the Western mind. They also had an understanding of the consequences of these assumptions as they were played out at the end of the twentieth century...how they affected our lives today.

### **Personal Realizations**

This new understanding of transformation theory made me realize, with clarity, that I needed to have at least a basic, beginning understanding of the history and development of Western thought. If I entertained the idea of searching for assumptions in a graduate studies

class today, within the framework of transformation theory, this was essential.

### **Consequences of the New Understanding**

Feeling somewhat overwhelmed and yet excited and curious, I began reading and searching to understand Western thought from the Presocratics to now.

An attempt was made to read from original sources if they were in English, translated, if not in English. However, more often than not, I found I had to turn to secondary sources to make sufficient sense of the ideas and theories for application to this research. I gratefully accepted these sources, recognizing the years and depth of work they entailed. This included a book Dr. John Novak recommended this fall, a book that immensely helped to tie this project together, "The Passion of the Western Mind" by Richard Tarnas (1993).

### **The Research Project**

Inspired by discussions with Dr. Cranton, I decided to observe a graduate studies class and attempt to understand the experience of the class within the theoretical framework of transformation theory.

An understanding of the graduate studies class experience and an understanding of the significance of transformation theory emerged together. The concepts and issues transformation theory is based upon provided new ways to consider the class experience. In turn, the class experience provided concrete "real life" examples that helped make sense of transformation theory.

Author T. S. Eliot aptly captures the essence of this research experience in "Little Gidding," one of his four quartets:

We shall not cease from exploration

And at the end of all our exploring

Will be to arrive where we started

And know the place for the first time. (Eliot, 1959, p. 48)

At the end of the experience I began to appreciate how experience is shaped by our preconceptions, our assumptions, and why transformation theory is important in today's world.

### **Statement of the General Situation**

Examining the graduate studies class experience within the framework of transformation theory entailed the investigation of two different but complementary realms. One realm involved investigating the graduate studies class experience and the second, the development of Western thought in search of underlying assumptions that shape our experience.

"Each generation must examine and think through again, from its own distinctive vantage point, the ideas that have shaped its understanding of the world. Our task is to do so from the richly complex perspective of the late twentieth century" (Tarnas, 1993, p. xiv).

The enigma of the search for assumptions underlying Western thought and the class experience, in order to understand the class experience, emphasized the richness and complexity of the problem situation.

### **Graduate Studies Class Problem Situation**

The graduate studies class was seen as a microcosm of the greater whole, rich in complexity. In its own unique way it reflected some of the assumptions, differences, tensions, and opportunities characteristic of the Western world today.

### **Transformation Theory Problem Situation**

Attempting to understand the experience of the graduate studies class within the framework of transformation theory precisely entailed thinking through and understanding some of the assumptions underlying Western thought.

Transformation theory encourages us to delve into the history and development of Western thought by asking us to examine critically the assumptions underlying our personal and community experience. It offers a constellation of theories within which to consider our experience.

These theories emerge from "constructivism, critical theory, deconstructivism in social theory and in all of the social sciences, law, literature, and art....also... the cognitive revolution in psychology and psychotherapy" (Mezirow, 1991b, p. xiii). This backdrop encourages a search for assumptions to make sense of experience from a wide variety of fields that reflect the complexity and diversity of western thought today.

### **Summary: Problem Situation**

This research project entailed examining a graduate studies class in its natural setting, in all its complexity. Transformation theory framed the study to search for influencing Western assumptions.

### **Purpose of the Study**

This exploratory study was designed to search for assumptions that influence experience.

Assumptions were intentionally explored for in Western philosophical, religious, and scientific literature. This search was embarked upon to provide a beginning understanding of some of the major assumptions shaping our thoughts and actions today and, thus, those of the class observed.

The graduate class was entered into and studied to identify some assumptions that influenced the class experience as it unfolded over one semester.

The overall purpose of the study was to begin to understand and appreciate the importance of the "assumption and its consequences," a major concept of transformation theory. It also intended to identify research and study possibilities within the framework of transformation theory.

### **Questions to be Answered**

What is transformation theory about?

Why is transformation theory important today?

What are some the assumptions influencing Western life today?

What is the experience of the graduate studies class?

What are some of the assumptions influencing the class experience?

### **Rationale**

Eduard Lindeman, a leader in adult education, penned a description of adult education in 1925 as,

a co-operative venture in non-authoritarian, informal learning the chief purpose of which is to discover the meaning of experience; a quest of the mind which digs down to the roots of the preconceptions which formulate our conduct; a technique of learning for adults which makes education coterminous with life. (Brookfield, 1984, p. 187).

Seventy years later a theory of adult education is being written that addresses the meaning of experience and the preconceptions at the root of our experience.

Mezirow asserts that there is a need for a theory of adult education that "can explain how adult learners make sense or meaning of their experience" and that can explain the "dynamics involved" in changing problematic experiences (Mezirow, 1991b, p. xii).

It has become apparent to me over the past twenty years working in various positions in nursing education, administration, and management that we are most adept at describing situations. We are not adept at defining problems, let alone identifying assumptions underlying the problems. Further, by being "arrested" or "frozen" at the descriptive stage of problem solving we are not effective agents of change.

Consequently, I am interested in participating with the research and development of a theory that moves us well beyond the descriptive stage of problem solving. This theory moves people to reflect on experience, to

think and discuss critically, and to transform ineffective preconceptions. This, I believe, is worthy of exploration and research.

It is energizing to participate in a theory of adult education that holds forth the goal of helping adult learners become more critically reflective, participate more fully and freely in rational discourse and action, and advance developmentally by moving toward meaning perspectives that are more inclusive, discriminating, permeable, and integrative of experience (Mezirow, 1991b, p.225).

If we effect such change in ourselves and those who wish to participate with us, perhaps we will make our homes, workplaces, and community better places in which to live. If this is possible, is it a step toward achieving the goals of freedom, democracy, equality, and justice?

### **Importance of the Study**

This study hopefully contributes yet another way to think about transformation theory theoretically and practically. It is also a beginning attempt for me to research within the framework of transformative dimensions of adult learning.

An attempt has been made to understand the broader implications of transformation theory, to locate it within the wider arena of Western thought and the arena of everyday living, specifically that of the graduate studies class experience.

The study has been written with other masters students in mind, specifically those interested in transformation theory and those with a beginning interest in the history and development of Western thought.

The exploratory nature of the study has been designed to anticipate and direct future study and research for this researcher.

### **Definition of Terms**

Transformation theory terminology is taken directly from Mezirow's work. This is to enhance a common understanding of the terms and to promote the possibility of a closer comparison of this study with other transformation theory studies now and in the future. Other definitions include their related sources.

#### **Age of the Enlightenment**

Age of the Enlightenment is a term used to describe the European and North American movement in the 18th century which "stressed tolerance, reasonableness, common sense, and the encouragement of science and technology" as opposed to the 20th century term which refers to the growth of "Asian religious mysticism" (Bullock & Woodings, 1983, p.272).

#### **Cognitive Revolution**

Gardiner (1985), a cognitive psychologist, defines cognitive science as "a contemporary, empirically based effort to answer long-standing epistemological questions-particularly those concerned with the nature of knowledge, its components, its sources, its development, and its deployment" (p. 6). Cognitive science attempts to explain human knowledge.

The cognitive revolution includes the debates, activities, and studies from a wide variety of disciplines. These disciplines include "philosophy,



psychology, artificial intelligence, linguistics, anthropology, and neuroscience" (p.7) and education. The debate pre-dates Socrates, Plato, and Aristotle and continues through the centuries to the present time. This century has seen some of the most revolutionary changes in the cognitive sciences as a result of scientific and technological developments, particularly in the area of artificial intelligence and the neurosciences. This century has also seen a return to the debate surrounding meaning, understanding and rationality.

### **Critical Reflection**

Critical reflection is the assessment of the validity of the presuppositions of one's meaning perspectives, and examination of their sources and consequences (Mezirow, 1991a, p. xvi).

### **Critical Self-Reflection**

Critical self-reflection is the assessment of the way one has posed problems and of one's own meaning perspectives (Mezirow, 1991a, p.xvi).

### **Constructivism**

Transformation theory bases its understanding of constructivism particularly on Philip Candy's explanation of constructivism (Mezirow, 1990b, p.xiii). This explanation is derived directly from Candy's work (1991).

The term constructivism is an "elusive" term. It is a "cluster of perspectives united by underlying similarities in world view (Candy, 1991, p. 225)." It derives from a variety of sources that include philosophy, philosophy of science, the history and sociology of knowledge, art and

architecture, Piaget's theory, amongst others. It finds its origins also in the work of Kant, Hegel, John Dewey and quantum theory.

A central notion of constructivism is that people are "self-constructing," and their behaviour is considered to be "purposive and intentional" (p.277).

The cluster of perspectives understood as constructivism composes a world view or paradigm. Candy (1991, p.256) lists some of the common assumptions of this paradigm:

- People participate in the construction of reality.
- Construction occurs within a context that influences people.
- Construction is a constant activity that focuses on change and novelty rather than fixed conditions.
- Commonly accepted categories or understandings are socially constructed, not derived from observation.
- Given forms of understanding depend on the vicissitudes of social processes, not on the empirical validity of the perspective.
- Forms of negotiated understanding are integrally connected with other human activities.
- The "subjects" of research should be considered as "knowing" beings.
- Locus of control resides within the subjects themselves, and complex behaviour is constructed purposely.
- Human beings can attend to complex communications and organize complexity rapidly.
- Human interactions are based on intricate social roles, the rules governing which are often implicit rather than overt.

### **Critical Education Science**

Critical education science attempts to take Habermas's critical theory and apply it to the practice of education. Subsequently, critical education science emphasizes the "constant transformation of educational practice to achieve the two goals of enlightenment and emancipation" (Ewert, 1991, p. 375).

Mezirow's research and development of transformation theory includes the critical education science approach amongst other approaches (Mezirow, 1991b, p. xiii).

### **Critical Theory**

Critical theory is a term used loosely to refer to two different branches of thinking. It refers to the thinking and philosophy of The Institute of Social Research, Institut für Sozialforschung, established in Frankfurt, Germany in 1923. It also refers to Jürgen Habermas's more recent work in philosophy and sociology (Held, 1980; Thompson, & Held 1982).

The Institute's membership represented a multidisciplinary team of philosophers, sociologists, social psychologists, economists, political scientists, psychoanalysts, musicologists, students of popular culture and literature, and national planners. The Institute is often referred to as the "Frankfort School," a misleading term.

The Frankfort School represents the work of five men, Horkheimer, Adorno, Marcuse, Lowenthal, and Pollock, who were part of the Institute.

The Frankfort School and Habermas explored the works of Kant "a concern with the conditions and limits of reason and knowledge," Hegel

"a reflection on the emergence of spirit," and Marx "a focus on specific historical forms-capitalism, the exchange process" (p.16).

The Frankfurt School and Habermas seek to critically examine "contemporary social and political issues," more specifically to critique ideology, with the goal of developing a "non-authoritarian and non-bureaucratic politics" (p. 16).

Critical theory attempts to "understand why the social world is the way it is and, more importantly, through a process of critique, strives to know how it should be" (Ewert, 1991, p. 346). Critical theory aims at having the individual become aware of distorting knowledge to become "enlightened" in order to become free of such distortions and thus "emancipated" (p. 346).

### **Deconstructivism**

Deconstruction was first developed as philosophy. It has since been extended into "literary, art, and film criticism and theory," and also "psychoanalytic, pedagogical, and social theory" (Silverman, 1988, p.4).

Deconstruction is included under the broad heading of the postpositivist paradigms. The postmodern and poststructural are included under the rubric "deconstruction" (Lather, 1991, p.7)

Deconstructivism is not a technique or method, although it is sometimes referred to as a technique (Bullock & Woodings, 1983, p. 205). It tends to defy definition. Consequently, I have chosen to quote several different authors descriptions of deconstruction.

Silverman (1989) writes, "...deconstruction is concerned with offering an account of what is going on in a text-not by seeking out its meaning, or

its component parts, or its systematic implications-but rather by marking off its relations to other texts, its contexts, and its sub-texts" (p.4).

"To deconstruct is to demonstrate how a text works against itself..."(Lather, 1991, p. 83).

Krell writes, "Derrida shows that prior metaphysical, epistemological, ethical and logical systems have been constructed on the basis of conceptual oppositions such as transcendental/empirical, internal/external, good/evil, universal/particular. One term in each binary set is privileged, the other suppressed or excluded....the privileged term never achieves perfect identity...it is always already parasitic on or contaminated by the 'marginalized' term" (Urmson & Ree, 1989, p.72).

Transformation theory is understood, in part, within the context of deconstructivism.

### **Emancipatory Education**

Emancipatory education is an organized effort to precipitate or to facilitate transformative learning in others (Mezirow, 1991a, p.xvi).

### **Epistemology**

Epistemology is the "branch of philosophy concerned with questions about knowledge, belief, opinion, certainty, doubt, etc." (Sparkes, 1991, p. 209). The terms "epistemic and epistemology are virtually synonymous" (p.209).

### **Meaning Perspective**

A meaning perspective is the structure of assumptions that constitutes a frame of reference for interpreting the meaning of an experience (Mezirow, 1991a, p.xvi).

### **Modernism**

Hugh Silverman's explanation of the modern is the most succinct and clear explanation I have encountered. It is as follows (Silverman, 1990, p.p. 2 - 3): To be modern is to break with tradition, to interrupt the endless reiteration of classical themes, topics, and myths, to become self-consciously new, to attend to the modes of the times, to offer a critique of the conditions of one's own culture and society, to represent reality-not as it is-objectively and devoid of evaluation, but rather as it is experienced-subjectively and with the transcendental or critical consciousness available especially to the artist. To be modern is to "break with the past" and to "search for new self-conscious expressive forms" ....Modern man and modern woman are plagued with uncertainties, despair, bureaucratization, and mechanization. Their concern is how to cope with such solidification's and preoccupation's of modern times.

Modernism is a "modern movement" that arose in the "poetry, fiction, drama, music, painting, architecture, and other arts of the West" in the late 19th century and 20th century (Bullock & Woodings, 1983, p. 539). An example in music would be Wagner's music dramas that differed radically from the operatic works of Rossini, Mozart, Puccini, and Verdi. Modern art is "post-romantic" and characterized as futurist, cubist, surrealist, dadaist, abstract expressionists, post-post-impressionist. (Silverman, 1990, p.p. 3 - 4)

There is controversy as to which philosophers are included as modern philosophers. Descarte, Hume, and Kant are included as modern since they clearly split with the ancients. Helgel, Marx, Mill, and Comte are also modern but, as Silverman says, "modern with a twist, or several twists" (p. 5).

Modernism centers, focuses, and promotes continuity once it has broken with tradition.

### **Normative**

The Concise Oxford dictionary defines normative as "of or establishing a norm" (Sykes, 1984, p. 690). It defines norm as "standard, pattern, type; customary behaviour" (p.690).

Sparkes (1991) differentiates between normative and descriptive law to accentuate the meaning. Normative law refers to what "ought to be done." It relates to values. Descriptive law is scientific law and relates to facts.

### **Paradigm**

Paradigm is a term that has been given meaning by the work of Thomas Kuhn within the philosophy of science (Bullock & Woodings, 1983, p. 625). Kuhn refers to the "framework of assumptions" that scientists use to think about and validate their research as a "paradigm" (Sparkes, 1991, p.119).

A "Kuhnian paradigm" has become more generally known as, "the basic set of assumptions in the light of which a person or group attempts to understand events and the world (Sparkes, 1991, p.119)." The word paradigm is used in this more general sense in this thesis.

The terms paradigm of thought, frame of reference, and meaning perspective are included to be synonymous.

The major paradigms of thought refer to the major frames of reference that have evolved since the age of the Enlightenment to the present and that continue to shape our thinking and actions.

### **Post Modernism**

Post modernism "decenters, enframes, discontinues, and fragments the prevalence of modernist ideals" (Silverman, 1990, p.5). "Its very significance is to marginalize, delimit, disseminate, and decenter the primary (and often secondary) works of modernist and pre modernist cultural inscriptions" (p.1).

Post modernist thinking is rethinking. Post moderns re-read the texts. They re-examine the "ends, goals, hopes of modernist activity, situating it in its context of pre modernist framework" (Silverman, 1990, p.1 and 2).

Post moderns re-read "architecture, painting, literature, theatre, photography, film, television, dance, fashion" (p.7 and 8), philosophy, history.

Post modernism challenges the grand narratives of modernism that attempt to explain events in terms of universals or abstracts, and seeks for absolutes and certainty (Lather, 1991. p. 6). Post modernism focuses on the particular, the local, the excluded, differences, the multiple and the changing. It seeks to decentre the voice of authority.



### **Reflection**

Reflection is the examination of the justification for one's beliefs, primarily to guide action and to reassess the efficacy of the strategies and procedures used in problem solving (Mezirow, 1991a, p.xvi).

### **Transformative Learning**

Transformative learning is the process of learning through critical self-reflection, which results in the reformulation of a meaning perspective to allow a more inclusive, discriminating, and integrative understanding of one's experience. Learning includes acting on these insights. (Mezirow, 1991a).

### **Scope and Delimitations of the Study**

The scope and delimitation's of the study are discussed in terms of the literature review, the class observed, the nature of the research, and the researcher.

### **Scope and Delimitation of the Literature Review**

Transformation theory has been considered from the vantage point of its importance in understanding today's world. Theoretical concepts within the framework of transformation theory other than the "assumption and its consequence" are not considered.

The need to grasp an overview of the development of Western thought necessitated a broad review of the literature. There is not an in-depth review of any area. This review was limited by time and my personal lack of expertise in the areas of philosophy, religion, and science.

The review was enhanced and limited by having to rely on secondary sources of information.

### **The Class Observed**

This research project is limited to the observation of one graduate studies class over one semester.

Considering the uniqueness and complexity of groups, the conclusions and recommendations are tailored for the specific class observed.

Considering the fact that assumptions underlying Western thought were used to identify root causes of the problems identified, it is conceivable that some of the observations and conclusions could be generalized to other graduate studies classes in a university setting.

### **The Nature of the Research**

The exploratory nature of the research enhanced the possibilities for generating ideas to follow up in the areas of theory, practice and research.

The exploratory nature limited an in-depth examination of any area chosen for analysis. It also resulted in conclusions and recommendations being tentative, being stated with caution and reserve.

### **The Researcher**

This has been the writer's first research project carried out alone and the first done within a qualitative paradigm. The research has been conducted within a theoretical framework in adult education that is also new to the researcher. The exploration of Western thought has been new

territory. Needless to say, the research has been limited by lack of experience.

The project has been enhanced and limited by the researcher's twenty years of experience gained in nursing, working with small groups and teams in health care education and service. It has been enhanced by some insights that I have gained about people and working together. It has been limited by habit, implicit assumptions that I "fail to see."

### **Outline of Remainder of the Document**

**Chapter two** is a review of the literature. Transformation theory is briefly discussed highlighting its goals and locating its importance in today's world. This is followed by an exploration through Western thought painted in broad brush strokes. Major historical eras are briefly described. The important assumptions emerging from the era are then summarized. The central themes arising from the eras are briefly discussed, subject-object relationships, the changing view of the self, the rise of bureaucracies, and the importance of ethics, discourse, and democracy. The relevance of the review to transformation theory and the study is pursued. The chapter is concluded with a review of research done within the framework of transformation theory.

**Chapter three** outlines the methodology and procedures used for the research project. It begins with a discussion of the rationale for using a qualitative approach. It outlines the major features of the research design. The method of data collection, recording, and analysis are discussed and defended. This includes a discussion of the pragmatic problem-solving method that is used to analyze the case study. It also includes an explanation of how Greek archetypes are used to provide

insight into the group's behaviour. Further, the limitations of the study are discussed, including a description of the researcher's personal assets, limitations and effect on the research. The chapter is concluded with a re-statement of the problem.

**Chapter four** is a description of the results of the research. It begins with an overview of the case study. This is followed by a description and brief discussion of a "web" metaphor that is used to make sense of the research experience. Major elements of the research project are then identified, described, analysed and discussed individually. The analysis includes the assumptions identified in chapter two; these stand as root causes of the problems identified by the analysis. Major elements discussed in succession include the context, the course outline and content, and finally the group process which focuses on the most important element, the participants. In conclusion, the results are discussed in terms of the "web" metaphor and their relationship to the findings in chapter two.

**Chapter five** summarizes and concludes the research. The implications for theory, practice and further research are discussed.

## **CHAPTER TWO: REVIEW OF THE RELATED LITERATURE**

This chapter opens with an overview of transformation theory. A metaphorical conceptualization of the theory as a constellation follows. This conceptualization naturally leads to a consideration of transformation theory as a philosophy. The section concludes by emphasizing the importance of considering transformation theory within the context of Western thought.

A brief history of the development of Western thought from the Presocratics to the present is sketched in the next section. The purpose of this is to search for and identify assumptions that have evolved over the centuries and that currently shape our thoughts and actions today.

The third section further develops themes emerging from the historical review appertaining to transformation theory and the research project.

The relevance of the review to transformation theory and the study is then delineated. The chapter is concluded with a review of research that has been done within the framework of transformation theory.

### **Transformation Theory**

The range of what we think and do  
is limited by what we fail to notice.  
And because we fail to notice  
that we fail to notice  
there is little we can do

to change  
 until we notice  
 how failing to notice  
 shapes our thoughts and deeds.

An R. D. Laing "knot" quoted by Mezirow, (1991b, p.19)

Noticing, bringing to conscious awareness, challenging through discussion and changing or "transforming" the assumptions that exist beneath the beliefs and values that shape the way we see and understand our experience is what transformation theory is about. Our personality, experience, culture, society, and language work in collaboration to create and maintain the assumptions that both enhance and limit learning.

In transformation theory it is considered a "cardinal function" of the adult learner and educator to challenge the assumptions that underlie beliefs, feelings and actions (Mezirow, 1991b, p. 224).

Focusing on this cardinal function adds a new dimension to teaching and learning. It adds the dimension of asking why we do what we do. It is a function which probes the assumptions underlying how we learn, how we create or respond to instructional methods, how we participate together in groups and in counselling sessions. It promotes critical thinking and dialogue and the exploration of alternative assumptions upon which we can base our frame of reference. It is a tall order for educator and learner. The concept is not new. The questions associated with this cardinal function are basically "How are we living?" "How ought we to live?" and "What ought we to do?" These are the "fundamental practical questions of ethics" (Singer, 1993, p. xi). As

Socrates emphasized, "It is not a trivial question: What we are talking about is how one ought to live" (Williams, 1985, p. 1).

We are all joining in and asking these very questions as we experience rapid changes in our lives, information overload, declining economies, ecological disasters, racial and ethnic clashes, the chaos in Eastern Europe, and the tensions in the Middle East.

Transformation theory is about focusing on the assumptions we have "failed to notice" and that have thus limited us. It is about perspective transformation, about how we can extend the range of what we think and do, about enhancing the meaning of our experience.

### **Transformation Theory: A Constellation of Theories**

Transformation theory is based on the work of many different people whose ideas are at times complementary to one another and at other times at variance with one another. It draws on the theory and research of philosophers, psychologists, psychiatrists, sociologists, anthropologists, educators, feminists,, Neurobiologists, linguists, and theologians (Mezirow, 1991a).

Transformation theory is by no means a theory situated in isolation, it is a cluster of theories, each of which enhance the meaning and possibility of the theory. A constellation metaphor has been invaluable in helping this researcher to conceptualize transformation theory.

### **The Constellation Metaphor**

This metaphor derives from Theodor Adorno's and Walter Benjamin's writings and was introduced to me by Richard Bernstein in his book, "The New Constellation: The Ethical-Political Horizons of Modernity/Post

Modernity," (1992). The idea of the constellation metaphor is a "juxtapositioned rather than integrated cluster of changing elements that resist reduction to a common denominator, essential core, or generative first principle" (Bernstein, 1992, p. 8) (my emphasis). The metaphor provides a different framework within which to think that is symbolic of late twentieth century Western thought.

Juxtaposed around transformation theory is "constructivism, critical theory, deconstructivism....and the cognitive revolution" (Mezirow, 1991b, p. xiii). Beyond and within these major constructs are the many theorists.

Transformation theory does not elicit a search for the Archimedian point upon which we can ground our knowledge. It elicits a way of thinking that stresses dynamic relationships. Danah Zohar eloquently describes this new way of thinking in her book, "The Quantum Self" (1990). It is "A view that tells us our world comes about through the mutually creative dialogue between mind and body (inner and outer, subject and object) , between the person and his personal and material context, and between human culture and the natural world" (p. 237).

### **Transformation Theory: A Philosophy**

Transformation theory is a philosophy of adult education (Mezirow, 1991b, p. xii and p. 198). It is not simply a theory of adult learning. Henceforth transformation theory will be referred to as a philosophy.

Along with other philosophers, Mezirow seeks to develop an understanding of the meaning of life, of experience. He proposes a frame of reference within which to consider experience. He advocates an approach to living that upholds the ideals of freedom, democracy, justice, equality, and social cooperation.



### **A Frame of Reference: A New Way of Thinking**

Mezirow advocates that the learner move "toward meaning perspectives that are more inclusive, discriminating, permeable, and integrative of experience" to "advance developmentally" (p.225).

Exclusive, non-critical, impermeable, "Either/Or" thinking that is insensitive to experience reflects a mechanical world view. Such a view depicts the world as a clockwork machine, lifeless and cold. Inclusive, discriminating, permeable, "Both/And" thinking that is integrative of experience reflects a holistic world view. Such a view depicts the universe as a dynamic living whole. The parts and structures of such a world are seen in relationship to one another and to the whole and are understood in terms of their processes. Mezirow moves beyond the sterile debates of "Either/Or" thinking. These age old debates have kept our world separated into troubling dichotomies, such as that of the mind and body, thought and action, individual and society, theory and practice.

His philosophy demonstrates a way of thinking that stresses relationship, promotes "Both/And" thinking, and sees every structure as the manifestation of an underlying process.

The learner, assumptions, and theories are seen in dynamic relationship with each other and within the context of living in the Western world at the end of the twentieth century.

The learner, assumptions, and theories will be briefly described in terms of some of their relationships and processes.

### **The Learner**

The learner is seen as an individual who is inseparable from society. The individual's assumptions and those of society effect one another in the construction of reality. This involves an integral interaction between personality, experience, culture, society, politics and language.

The philosophy emphasizes the idea that the individual participates with the construction of his/her reality and thus can change his/her experience (Mezirow, 1991b). In summary, the learner is in relationship with society underlying which is the process of constructivism.

### **The Assumption**

Assumptions are understood in relationship to their consequences. Assumptions for the most part are implicit. They silently shape the experiences of the individual and society. They shape the meaning of experience.

The central thrust of this philosophy is that it is possible to identify and change inappropriate assumptions through a process of transformation. The philosophy addresses changing personal and collective assumptions that are ineffective and thus limit one's experiences personally and collectively.

### **Theories**

This philosophy is based upon a constellation of theories that are interdisciplinary in nature. The theories are seen in relationship with one another and with in the context of Western thought. They enhance a process of thinking of "Both/And."

### The Critics

The critics emphasize the importance of understanding a philosopher's frame of reference.

Clark and Wilson (1991) argue in a variety of different ways that Mezirow separates "experience from the context which both shapes it and provides its interpretive framework" (p. 90). Collard and Law (1989) argue that Mezirow's theory leaves "us with the impression that emancipation can be realized without social action" (p.105) and that "Mezirow's ideas inevitably suppress the concept of a radical praxis as that advanced by Freire and other proponents of transformative education" (p.106).

Mezirow writes, in response to Clark and Wilson, that, "Clearly, I have failed to communicate to the extent that these able colleagues have seriously misinterpreted my meaning" (1991, p. 190). In response to Collard and Law, Mezirow writes, "That they are reading what I have written from a different meaning perspective or paradigm seems self-evident" (1989, p. 170).

On both accounts I agree with Mezirow. The critics have misread him. My only criticism, and it is minor, is that if Mezirow had been more explicit and clear about his paradigm of thinking, some of the "misreading" could have been avoided.

The earlier explanations of Mezirow's frame of reference are based on my interpretation developed from reading and re-reading his theory, with associated theorists and the development of Western thought. It seems we quickly take for granted the new assumptions we assimilate and thus fail to notice that we have not made them as explicit as possibly we could.

### **Summary**

This philosophy seeks to help the learner "advance developmentally" (Mezirow, 1991b, p. 225) and to "create communities of discourse" that foster the ideals of "freedom, democracy, justice, equality, and social cooperation" (p.199). The achievement of these goals depends upon identifying the assumptions underlying experience and changing them to promote personal growth and democratic communities.

The philosophy promotes open, versatile, critical thinking and dialogue, a type of thinking that appreciates and acknowledges difference. This versatility sets the tone for the possibility of including and generating additional theories to enhance understanding the meaning of experience. Most importantly the philosophy prompts examining the various theories in relationship to one another and to Western thought as a whole.

The next section briefly narrates the history and development of the Western mind. It emphasizes some of the assumptions and their consequences that shape our experience today. It intends to extend the range of what we think and do by noticing what we, perhaps, have failed to notice that shape our thoughts and deeds.

### **The History and Development of the Western Mind**

This section is divided into historical eras. Each era is discussed briefly, outlining significant historical figures, events, and ideas. Principle assumptions influencing the Western mind are summarized at the end of each era.

As the meaning of each era unfolded in all its drama and beauty, I was profoundly impressed by the uniqueness and yet the similarity of the quest to understand human nature and the universe.

Some of the perplexing questions that we face today and the epiphanies we experience are little different from those of the ancients. It seemed to me that, "What has been is what will be, and what has been done is what will be done; and there is nothing new under the sun....It has been already in the ages before us" (Ecclesiastes 1: 9 & 10).

At the same time, I felt with intensity and anticipation that our moment in history is a pregnant one, located at the very edge of a new dawning.

### **The Mesopotamian Astronomer-Astrologers**

The astronomer-astrologers from Mesopotamia, "the land between the rivers" namely the Euphrates and the Tigris in western Asia, (circa 3rd millennium B.C.), now known as Iraq, are the ancient architects of Western cosmology.

These ancient astronomers marked the difference between the heavens and earth. They noted that earthly life was changeable, unpredictable, and degenerative as opposed to the heavens that were ordered, seemingly timeless, eternal, and beautiful.

The celestial stars and the planets were thought to be gods. The celestial realm was considered divine, "the very image of transcendence" (Tarnas, 1993, p. 49). The earth, the terrestrial realm was influenced by the celestial realm (Guthrie, 1988a, 206).

The distinction between the heavens and earth marks, in recorded history, the beginning of the dual legacy handed down to us from the

Ancients. This distinction profoundly shaped the approaches taken to understanding human nature and the universe in Western civilization.

The astronomer-astrologers also began a study of the heavens that "would ultimately culminate two thousand years later in the work of Copernicus and Kepler and their initiation of the Scientific Revolution"(Tarnas, 1993, p.48).

#### **Assumptions: Mesopotamia**

1. The celestial realm appears to be ordered, timeless, beautiful.
2. The celestial realm is the realm of the divine.
3. The terrestrial realm is changeable, unpredictable, degenerative.
4. The terrestrial realm is influenced by the celestial realm.

source (Guthrie, 1988a)

#### **The Presocratics**

The world of the ancient Greek was one of kinship, myth, and mystery. Socrates captures the notion of kinship in "The Meno" where he claims, "the whole of Nature is akin" (Allen, 1984, p. 164). And again in "The Gorgias," he says, "Wise men say...that heaven and earth and gods and men are bound together by communion, and friendship, orderliness, temperance, and justice, and it is for that reason they call this Whole a Cosmos, my friend" (p. 297).

Homer and Hesoid's epic poems (circa 800 B.C.) portray the indivisible synthesis of the individual and the *Kosmos*, of human activity and divine intervention. "A single fundamental order structured both nature and society" (Tarnas, 1993, p. 17).

There was no understanding of the subjective and the objective in the archaic world. The myths exhibited a "self-world circularity that undermined a strict subject-object distinction....an irreducible circle of world-and-self presentations." (Hatab, 1990, p. 41). The self was characterized as "self-in-the-midst-of-nature, self-in-the-midst-of-community, self-in-the-claim-of-a-sacred-other" (p.43).

Homer, Hesiod and the Greek tragedians Aeschylus, Sophocles, and Euripides (circa 400 B.C.) explored the deeper meaning of the human condition in the ancient myths. The myths both reflected and illuminated the experience of life.

The gods and goddesses of the Olympian pantheon, the archetypal realm, "were essences of life, by contemplation of which any individual life took on meaning and substance" (Tarnas, 1993, p. 15; Bolen, 1985, 1989).

**Assumptions: Presocratic**

1. The myth is a form of truth.
2. Both the lived world and much of human thought show meaningful echoes of mythical disclosure.
3. Rationality and myth can coexist.
4. A human being is dignified, noble, significant in the Kosmos.

source (1-3, Hatab, 1990, p. 293; Bolen, 1985, 1989; Guthrie, 1988a)

## **The Greek Enlightenment**

### **Early Signs of a New Consciousness**

The first signs of humanism began to faintly appear in the Greek tragedies.

Homer and Hesiod presented life in the epic poems as it was, existentially. Hatab describes the myth as passive and receptive and different to conceptual reason which is active. "Conceptual reason must actively work on what is immediately given" (Hatab, 1990, p. 33).

The tragedies "subjected conflict and suffering to the psychological and existential probings of a later more critical temperament" (Tarnas, 1993, p. 18). The universals, the absolutes were questioned by a new consciousness, a growing humanism, a shift in the Greek mind (Guthrie, 1990a).

### **The Prototypical Scientists**

Thales, Anaximander, and Anaximenes (circa 550 B.C.), the prototypical scientists, began to observe nature and explain it in its own terms. As their ability and power to describe nature in impersonal terms grew, the traditional mythological understanding weakened.

Heraclitus (circa 504-501 B.C.) contributed to philosophy the idea of unity in diversity, "one only exists in the tension of opposites" (Copleston, 1985a, p. 40). He understood all things to be in a state of flux. God was the universal reason and immanent in all things, the universal law that bound all things into unity and determined the constant change according to universal law.



Parmenides of Elea (circa 500 B.C.) from southern Italy, explained nature in purely abstract, logical terms. He considered this to be a divine revelation, as he was still sympathetic to traditional view.

Parmenides differentiated between the real and the apparent, rational truth and sensory perception, being and becoming (Tarnas, 1993, p. 20). This furthered the dual legacy started by the Mesopotamians and set the scene for the Idealist and Realist schools of philosophical thought (Guthrie, 1990a).

### **Early differentiations of the dual legacy.**

#### **Heavens**

Celestial  
Being  
real  
truth  
rationalism  
Idealism

#### **Earth**

Terrestrial  
becoming  
apparent  
sense perception  
naturalism  
Realism

### **The Concept of Theory: *Theoria***

Initially, Being was the divine mind, the *Nous* that "set the universe into motion and gave it form and order" (Tarnas, 1993, p. 21). Through contemplation of the divine and the order and harmony of the universe as seen in music, astronomy, and geometry, it was considered possible for the philosopher to become like the divine, the *Nous*.

The assimilation of the characteristics of the *Nous* was hoped to result in "an actual change in the philosopher's own nature" (Guthrie, 1988a, p. 212). If the philosopher's *ethos* changed, it would be possible to be emancipated from the passions and desires of a wayward life. Two thousand years later this notion of emancipation would be readdressed by Jurgen Habermas.

The active contemplation of the *kosmos* - the *Nous* and the order of the universe - is known in philosophy as "the concept of theory" or *theoria*. This concept dates back to Pythagoras (circa 400 B. C.) as he seriously practiced and taught it.

### **The Atomists**

Anaxagoras (circa 500 B.C.), forerunner of the atomists, suggested that the universe was composed of minute seeds that were ordered by the *Nous*. Leucippus (circa 500 B.C.) initiated the theory of atomism, and Democritus (circa 450 B.C.) elaborated and systemized it (Guthrie, 1990a).

They proposed that the world was made up of invisible, indivisible particles that moved randomly about in an open void. These particles were qualitatively the same but quantitatively different. They differed in shape, arrangement, position, magnitude, and weight; thus, they were measurable.

The particles collided and formed larger bodies and worlds. This occurred by both chance and necessity (by necessity of their very nature). Chance and necessity eliminated the need for the *Nous*. Nature was now being explained in totally rational, impersonal terms.

The scientists, with the exception of Pythagoras and his belief in the divine and the empirical, profoundly relied on reason. There was a movement away from the "supernatural toward the natural: from the divine to the mundane, from the mythical to the conceptual, from poetry and story to prose and analysis" (Tarnas, 1993, p. 24).

The gods of myth and mystery were questioned, doubted. They were seen as imaginary creations of the human mind. The sun was no longer the god Helios it was an incandescent stone. Ultimate truth lay in

the atom and the void. Sensory perception was seen as subjective, the result of the atom impacting on the atoms of the soul.

#### **Assumptions: The Atomists**

1. Human being's intellect and power render the gods useless.
2. The *Nous* is made in human being's image and thus doubted.
3. Purely abstract rational logic explains nature.
4. Atoms move mechanically by chance and can be measured.
5. Qualities are subjective human perceptions.
6. The human being figures less significantly overall in the universe.
7. Naturalism and rationalism are on the rise.

source (Guthrie, 1990a; Tarnas, 1993).

#### **Athens at Its Peak**

As Athens rose to its peak of intellectual, cultural, and political development in the fifth century B. C., the new humanistic spirit flourished.

There was a sense of egalitarianism and competitiveness. The Greek mind "continued to move toward conceptual thought, critical analysis, reflection, and dialectic" (Tarnas, 1993, p. 25). Democratic self-government was established. Technical strides were made in the areas of agriculture and navigation.

#### **The Sophists**

The Sophists (circa 500-400 B.C.) advanced a secular humanism based on relativism. They convincingly persuaded the public that truth was relative, not absolute, it differed from context to context. Opinion was judged by its practical usefulness. Greater value was given to the art

of arguing than to the claim. Amoral opportunism emerged from the radical skepticism of the Sophists (Copleston, 1985a; Guthrie, 1990a)

### **The Decline of Athens**

Athens began to degenerate. Basic ethical standards were violated. Women and slaves were exploited. Democracy gave away to oligarchy. Ancient absolutes, having been eroded, left no basis for moral and ethical reasoning. Pure reason that had replaced the old values also began to turn on itself and undermine its earlier triumphs (Toynbee<sup>2</sup>, 1987).

### **The Birth of Philosophy**

#### **Socrates (circa 470-399 B.C.)**

Socrates brought an new awareness to Greek thought that focused on the soul and sought for a deeper understanding of the meaning of the "good life."

Upon turning from studying the natural sciences to ethics and logic he raised the penetrating question "How ought one to live?" He sought to understand the essential nature of virtue, goodness, justice, courage, piety, and beauty (Guthrie, 1988b).

Socrates' philosophy uniquely synthesized *eros* and *logos*, "passion and mind, friendship and argument, desire and truth" (Tarnas, 1993, p. 35). In doing so he revived the "Homeric hero," the archetypal essence, a faith in universals. The attempt to weave together rational empirical logic and the idea of universals was a monumental task as they had become dichotomized and dualistic, standing in opposition to one another.

The "Socratic Method" (Lavine, 1989, p.22), the method of questioning point and counterpoint continues today as a way to search for deeper meaning. This method emphasized the process of philosophy, sincere critical dialogue with others and critical self-reflection. The method of analysis used by Socrates is basic to our scientific method, the statement of an hypothesis, the deduction of its consequences, the judging of its value.

Socrates, the prototypical philosopher of Western philosophy, wrote nothing. His life and ideas are primarily portrayed in Plato's dialogues and secondarily in Xenophen's "Memorabilia" amongst other writings (Guthrie, 1988b).

### **Plato and Aristotle**

The differing philosophies of Plato and Aristotle emphasize the tension, the difference between the Idealistic and Realistic frames of reference used to understand the world.

### **Plato (circa 428-347 B.C.)**

Plato, influenced by both Socrates and Pythagoras, founded his rationalism on a universal and divine foundation, the archetypal Ideas and Forms.

Tarnas succinctly describes Plato's archetypal Ideas and Forms. He writes:

Platonic forms are not conceptual abstractions that the human mind creates by generalizing from a class of particulars. Rather, they possess a quality of being, a degree of reality, that is superior to that of the concrete world. Platonic archetypes form the world

and also stand beyond it. They manifest themselves within time and yet are timeless. (Tarnas, 1993, p. 6)

The archetype, the essential factor, carries the deepest meaning, reveals itself to inner perception rather than to the outer, and awakens a more profound sense of reality. Plato distrusted knowledge gained through sense perception. Plato considered divine knowledge to be implicit in every soul. It was the philosopher's task to lead out the truth from within.

Plato's reality was an integration of the ethical, rational, and aesthetic. Knowledge was gained through "intuition, memory, aesthetics, imagination, logic, mathematics, and empirical observation" (Tarnas, 1993, p. 54). At the "heart of Plato's conception of the world was....a wondrous regulating intelligence" (p. 44; Guthrie, 1993; Copleston, 1985a).

### **Aristotle (384-322 B.C.): Plato's "Young Colt"**

At the heart of Aristotle's world was also an "Unmoved Mover, the supreme perfect Being that is pure form, God" (Tarnas, 1993, p. 63). Aristotle employed a very different logic to arrive at a similar conclusion (Copleston, 1985a).

Aristotle, differing in temperament to Plato, rejected Plato's archetypal Ideas and Forms. The real world for Aristotle was the empirical world of the particular known through sense perception. The archetypal Ideas and Forms could not be verified and were not logical for Aristotle's temperament.

Aristotle used organic biology as the basis of his understanding of the world as opposed to abstract geometrical mathematics that Plato used. An organism moved from a state of immaturity to maturity, from the

potential to the actual. The essence of something was seen to be the form into which it grew. The essence of something was not outside matter but embodied in matter. The essence or form provided the structure and the dynamic for development. Thus the "form of the oak is implicit in the acorn" (Tarnas, 1993, p. 58; Guthrie, 1990b, p. 128)).

Empiricism and logic were at the foundation of Aristotle's knowledge as opposed to the intuition of archetypal Ideas and Forms at the basis of Plato's. Plato's wondrous regulating intelligence was understood mystically. Aristotle's God "was essentially the logical consequence of his cosmology, a necessary existent on physical grounds" (Tarnas, 1993, p.67; Guthrie, 1990b, p. 135). Aristotle's legacy of logic, empiricism, and natural sciences more predominantly defined the Western mind than did Plato's legacy.

### **The Classical Greek Legacy**

The legacy of the Greek mind evolved into two sets of assumptions and forces. The first set initiated by the Presocratics, Homer, Hesiod, and the tragedians, carried on through Pythagoras, and Socrates and culminated in the extraordinary Platonic dialogues. The second set evolved from the work of Thales, Parmenides, Anaxagoras, Leucippus, Democritus, the atomists, Sophists, Socrates and culminated in Aristotle's seminal work.

The profound inner tension between the two sets of assumptions "provided the Western mind with the intellectual basis, at once unstable and highly creative, for what was to become an extremely dynamic evolution lasting over two and a half millennia" (Tarnas, 1993, p. 71).

**Assumptions: Classical Greek****Platonic**

1. The world is an ordered cosmos, whose order is akin to an order within the human mind. A rational analysis of the empirical world is therefore possible.
2. The cosmos as a whole is expressive of a pervasive intelligence that gives to nature a purpose and design, and this intelligence is directly accessible to human awareness if the latter is developed and focused to a high degree.
3. Intellectual analysis at its most penetrating reveals a timeless order that transcends its temporal, concrete manifestation. The visible world contains within it a deeper meaning, in some sense both rational and mythic in character, which is reflected in the empirical order but which emanates from an eternal dimension that is both source and goal of all existence.
4. Knowledge of the world's underlying structure and meaning entails the exercise of a plurality of human cognitive faculties rational, empirical, intuitive, aesthetic, imaginative, and moral.
5. The direct apprehension of the world's deeper reality satisfies not only the mind but the soul: it is, in essence, a redemptive vision, a sustaining insight into the true nature of things, that is at once intellectually decisive and spiritually liberating.

(source, Tarnas, 1993, p. 69 & 70, Guthrie, 1993; Allen, 1984)



### Assumptions: Classical Greek

#### Aristotelian

1. Genuine human knowledge can be acquired only through the rigorous employment of human reason and empirical observation.
2. The ground of truth must be sought in the present world of human experience, not in an undemonstrable otherworldly reality. The only truth that is humanly accessible and useful is immanent rather than transcendent.
3. The causes of natural phenomena are impersonal and physical, and should be sought within the realm of observable nature. All mythological and supernatural elements should be excluded from causal explanations as anthropomorphic projections.
4. Any claims to comprehensive theoretical understanding must be measured against empirical reality of concrete particulars in all their diversity, mutability, and individuality.
5. No system of thought is final, and the search for truth must be both critical and self-critical. Human knowledge is relative and fallible and must be constantly revised in the light of further evidence and analysis.

(source, Tarnas, 1993, p. 70 & 71; Guthrie, 1990b; Copleston, 1985a)

#### Judaism

The ancient and rich history of the Hebrew people grew and developed along side the history and development of the Greeks.

The pluralistic Greek mythology and religion emerged from the melding of the heroic patriarchal myths of the Indo-European warriors and

the highly developed matriarchal myths of the indigenous pre-Hellenic societies. Judaic monotheism arose from the oral traditions in epic form and eventual writings of a seminomadic tribe in the Ancient Near East.

### **Abraham (circa 1800 B.C.)**

Abraham stands as the first of the Hebrew patriarchs. His life was one of obedience and trust in God who made a covenant with him.

Interesting connections are made with the God of Abraham, the God of his forebearers, and the God of the Canaanites. The epic stories of the Judaic people recognize the God who walked with Adam in the Garden of Eden "in the cool of the morning," the God of Noah, and the God who created "the confusion of tongues" at the tower of Babel as the same God.

God requested that Abraham leave his home and go to a new land. In the course of his journey Abraham builds an altar to God at Beth-el, translated as the house of God. As the narrative moves, Abraham connects with Melchizedek, king of Salem (Jerusalem), a Canaanite. He is blessed by Melchizedek and in turn swears to Melchizedek's God El-Elyon (God most high).

In this a continuity is expressed between Abraham's God, Canaanite worship, and later, the God of Christianity (Eliade, 1978, 1982) (Tarnas, 1993) (Britannica, 1970, as in Vol. 13). A liaison is also recognized between Abraham's God, his son Ishmael, and the God of the Islamic religion (Smith, 1958). The meeting with Melchizedek also connects Abraham with Jerusalem, and later the throne of David (Britannica, 1970, as in Vol. 13, p. 104; Eliade, 1978). It is interesting to note the holy places in Jerusalem today include Jewish, Christian, and Muslim holy places.

### **The God of Judaism**

Yahweh (YHWH), the God of Judaism, is very different than any other god. Most significantly, the central claim is God is one God, "Hear, Oh Israel, the Lord our God, is one God" (Smith, 1958, p.258).

Huston Smith suggests that "The Greeks, the Romans, the Syrians, and most of the other Mediterranean peoples would have said two things about their gods' characters. First, the gods tend to be amoral; second, toward men they are preponderantly indifferent" (p. 258). The Hebrew's reversed this. God had an ethical and moral character and was deeply involved in the history and development of both people and nations. God is considered transcendent and not connected with nature as with other gods, such as the sun god Helios, Gaea (earth), the Great Mother Goddess.

#### **Assumptions: Judaic**

1. God is transcendent, unbounded by any form or manifestation of physical existence.
2. God is the sole creator of all things.
3. God is not a force but a character possessing moral and ethical attributes.
4. The supreme task of humankind is to conform to the divine pattern.
5. The transcendental ethical conception implies universalism.
6. God elects people to be recipients of divine revelation which they are to share with all others.
7. The quest for one God imparts a unity to all history in the purpose of God.

(Source: Britannica, 1970; Eliade, 1978; Smith, 1958)

## **The Melding Pot: The Transformation of the Classical Era**

### **Alexander the Great (356-323 B.C.)**

Alexander the Great's successful conquest of most of the known world facilitated the wide spread of Greek culture and language just as Greece fell.

Aristotle taught Alexander from the age of thirteen to sixteen. This inspired in Alexander an interest in philosophy, medicine, and scientific research. It also developed in him a deep appreciation of the Hellenic achievements. Subsequently, the large cosmopolitan cities established by Alexander "became vital centres of cultural learning, in whose libraries and academies the classical Greek inheritance survived and flourished" (Tarnas, 1993, p. 73; Toynbee, 1987).

### **The Roman Empire**

The Romans, upon conquering Alexander's short-lived empire, absorbed and advanced the Greek inheritance. Latin works were remodelled after Greek masterpieces.

The Romans added their invaluable knowledge and understanding of law, politics, and military strategy to the established philosophical, scientific, literary, artistic, and educational Greek works.

The classical Greco-Roman civilization rose and fell within a period of one thousand years. In the course of its unsettling fall, people began to search for new meaning, a greater spiritual meaning for their lives and experience.

### **The Emergence of Christianity**

Just as their search and yearnings reached a point of crisis, Christianity emerged and was established as the state religion of the Roman Empire under Constantine (circa A.D. 337).

Over the course of the decline of the Greco-Roman civilization a melding was seen between the Germanic barbarians from the north, Greco-Roman culture, Judaism, and Christianity. The Roman Catholic Church was established and the known world took on a new character.

### **The Christian World View**

#### **Jesus of Nazareth**

Jesus of Nazareth, like Socrates, wrote nothing. The writings about Jesus were initially written toward the end of the first century A.D.

The initial writings arose from the oral tradition and were written by the followers of Jesus. "The earliest extant documents are letters of Paul, who never met Jesus" (Tarnas, 1993, p. 92). The orthodox Church ultimately decided what documents to include in the Holy Scripture. These documents constitute the New Testament and were added to the Hebrew Old Testament.

Jesus was Hebrew. His followers believed that He was the Messiah, the Son of God, the fulfillment of the prophecies of the Hebrew Old Testament. The "church was the new Israel. Christ was the new covenant....What was born of Israel was Christianity" (Tarnas, 1993, p. 97).

### **The Spread of Christianity**

The first Christians were all Hebrew. The Jerusalem Christian Jews were intent that all of Israel be touched by Christianity before it was to be spread to other nations and people, thus maintaining the exclusiveness of Judaism and placing them in conflict with Paul the apostle. Paul born at Tarsus in Cilicia, of Hebrew descent, believed that Christianity should be shared with all people. He made it his personal mission and that of Christianity to "share the good news." He did this in opposition to the Jerusalem group.

Paul's background and credentials were ideal for taking Christianity to the world beyond the Jewish community. He was a Roman citizen, a Jew well trained in Jewish law and scripture, and educated at Tarsus, a centre of Hellenic culture and philosophy.

Ultimately, the majority of Christians were not Jewish. Many Hebrews rejected Christ as they were expecting a political monarch like King David. They were not prepared for "the apolitical, unmilitant, manifestly human, suffering and dying Jesus" (Tarnas, 1993, p. 98). The Gentiles of the larger Hellenic world were open to Christianity and adopted it.

The Roman Empire's rule over many nations made possible the communication and travel necessary for the spread of Christianity. It also made possible the establishment of Christianity as a state religion as mention earlier.

### **Christianity and Hellenism**

Christianity appeared to many to be the fulfillment of Socrates' and Plato's philosophies. It became the meeting place of the Hellenic and Judaic minds.

"Christ was the archetype of all creation" (Tarnas, 1993, p. 101). He was the Christian and Greek "Logos," an integration of the divine mind, human reason, and the redemptive Christ. In Him heaven and earth were united. The true philosopher became the lover of God.

Christianity integrated the linear concrete dynamic Judaic mind and the cyclical, abstract, analytic Hellenic mind. The Greek concept of God as the "supreme ruling intelligence" and the Judaic conception of God as the "supreme ruling will" were united (Tarnas, 1993, p. 104).

These ideas were developed and spread by Justin Martyr (circa A.D. 130.), Origen (A.D. 185-254), Irenaeus (circa A.D. 200), Plotinus (A.D. 205-270), Tertullian (circa A.D. 220), Clement of Alexandria, (circa A.D. 254), and later by Augustine (A.D. 354-430).

### **Dualistic Christianity**

Paul and Augustine recognized two themes in Christianity, the exultant and the juridical. Both authors developed more fully the juridical element, the element that primarily shaped the structure and behaviour of the Church.

The exultant theme emphasized the redemptive, compassionate, liberating aspects of Christianity. The juridical theme stressed "the historical mission...obedience to the will of God, moral rigor...doctrinal conformity and (the) exclusiveness of Christianity" (Tarnas, 1993, p. 158).

The development of the juridical theme facilitated the establishment of the Church and its later demise.

### **The Roman Catholic Church**

The Roman Catholic Church established itself in Rome within a century of the death of the apostles. The church's ecclesiastical jurisdiction is based on exact statements from the New Testament. The Church is considered divine as well as human, "the church triumphant, the church suffering, and the church militant, and is the fullness of him that filleth all in all. Hence it is holy and catholic" (Britannica, 1970, p. 464). The Church considered itself infallible in terms of morality and faith.

In the course of the first millennium "the Church gradually consolidated its authority in Rome...(and) definitively emerged as the one, true, universally authoritative institution ordained by God to bring salvation to mankind (sic)" (Tarnas, 1993, p. 161).

#### **Assumptions: Christianity**

1. There is one supreme God, the triune Creator, and Lord of history.
2. Christ the eternal Son of God, is equal with God the Father.
3. The Holy Spirit proceeds eternally from God and inspires humans.
4. The life, death, and resurrection of Jesus Christ are the means by which God brings about the salvation of the world.
5. Faith acknowledges God's love for humans, hope is the expectation of further love from God, charity is love in action.



6. God goes beyond justice to love, granting grace and forgiveness out of mercy.
7. Christianity is a way of life.

source (Eliade, 1982; Curtis, 1981a)

**Assumptions: Institutionalized Christianity and the Classical Mind**

1. Christianity negates polytheism.
2. Christian doctrine acknowledges but depreciates the metaphysics of archetypal Forms.
3. Christian doctrine reinforces Platonism's spirit-matter dualism by infusing it with the doctrine of Original Sin, the Fall of humans and nature, and collective human guilt...and by radically polarizing good and evil.
4. Christianity severs immanent divinity from nature.
5. Christianity dramatizes the relation of the transcendent to the human.
6. Christian faith and submission to the will of God diminishes the rational, empirical faculties in favour of the emotional, moral, and spiritual ones.
7. Christian doctrine renounces the human capacity for independent intellectual or spiritual penetration of the world's meaning in deference to the absolute authority of the Church and Holy Scripture for the final definition of truth.

(source: Tarnas, 1993; Curtis, 1981a)

### **The Medieval World**

The medieval era emerged in the midst of turmoil. The Roman Empire had fallen, northern barbarians invaded the West destroying both its political and cultural life.

The "Golden Age" of cultural development and learning dimmed and receded into the background as the "Dark Ages" unfolded. People and nations were struggling to survive life on a day-to-day-basis. Learning the language and ways of the reigning emperor was all one could accomplish in a lifetime. The early medieval monks cloistered in church monasteries were the only scholars in the West.

### **A New Awakening**

Around the year 1000 the medieval horizons began expanding. Politics became more democratic, the legal system more rational. Interest in nature and the natural sciences became the focus of intellectual pursuits once again. Technological inventions were advanced in the areas of agriculture and environmental control.

### **The Founding of Universities: New Intellectual Pursuits**

The new interest in the natural world resulted in the founding of the first universities, the University of Bologna and Paris, and the European university system. Universities were granted the freedom to pursue knowledge independently of church control. Classical Greek manuscripts, literary, philosophical and scientific, preserved and commented upon by Arabic scholars, were made available to the West.

Four major themes developed during the medieval years as a result of the new found intellectual independence of universities and the study

of the Greco-Roman manuscripts. Each theme dramatically shaped the medieval mind and made way for the renaissance, the beginning of the Modern Age.

### **The Return of Aristotle**

At the onset of the new awakening Aristotle became "the Philosopher" (Tarnas, 1993, p. 177). Aristotle's focus on the empirical, logical, and the natural sciences reflected and illuminated medieval scholarship. This focus increased the tension between the "divergent tendencies - Greek and Christian, reason and faith, nature and spirit" (Tarnas, 1993, p. 178).

Thomas Aquinas, (1225-1274), the Christian philosopher, responded to the tensions and attempted to synthesize faith and reason, nature and grace, and the works of Aristotle and Plato in his famous "Summa Theological." Aquinas's explanations placed a greater emphasis on concrete things, sense experience, intellect, and determined universals from particulars, thus emulating the Aristotelian approach. Aquinas's focus on logic, empirical observation and experiment "prepared the way in the late medieval universities for the massive convulsion in the Western world view caused by the Scientific Revolution" (Pegis, 1948, p. 178).

In the course of Aquinas's synthesis humankind's autonomy of will and intellect were declared valuable on their own account, "human reason could function within faith and yet according to its own principles" (Tarnas, 1993, p. 181). Humankind's empirical and rational intelligence was not a threat to the truths of religious faith. Rational philosophy enhanced spiritual understanding.

This new scholasticism in philosophy based on Aristotle's authority ironically invited critical examination that resulted in its very demise and the development of three new themes in Medieval thinking.

### **The Separation of Theology and Philosophy**

Aristotle's tutelage stimulated the minds of the secularistic philosophers in the faculty of arts at Paris and William of Ockham (1280-1349), the British philosopher and Franciscan priest. Each in differing ways concluded that the realm of reason and science and the realm of theology were "two separate truths and not necessarily continuous." This notion "effectively cut the link between theology and philosophy" (Tarnas, 1993, p.205).

### **The Return of Plato**

Scholastic Aristotelian dialogues turned, over time, into sterile debates over hairsplitting differences in the philosophy. The ceaseless, rational arguments turned the scholars curiosities to Plato's literary masterpieces.

Dante (1265-1321), possibly the greatest Italian poet, followed by Petrarch (1304-1374), Italian poet and the first humanist, stimulated the imagination of the medieval people with the revival of Plato. Scholars such as those at Chartres and Saint-Victor and Meister Eckhart (circa 1260-1328), the Christian mystic, also worked to reclaim Plato's philosophy.

The Platonic tradition raised imagination to the highest level of knowing and understanding. Archetypal meaning was found in concrete fact; myths facilitated metaphysical and psychological insights.

Observation of events was attuned to looking for hidden meaning and significance.

Humankind was considered noble in the universe once more. Freedom of thought and the power of self-transformation was affirmed and encouraged. Classical humanism was reborn (Gilson, 1991).

### **The Secularization of the Church and The Rise of Lay Mysticism**

From the tenth to the fourteenth century the Church established its authority, power, and a huge bureaucracy. The focus of the Church on spiritual understanding and development and the individual shifted to financial and political arenas. The churches spiritual role diminished, its secular role accelerated.

As the secularization of the Church grew appeals for reform were heard. Marsilius of Padua (circa 1275-1342), Italian political philosopher, John Wycliffe (circa 1330-1384), English reformer and theologian, Jan Hus (circa 1370-1415), dean of Philosophy, University of Prague were amongst the early reformers that responded to these appeals and precipitated the Reformation in the Modern Age.

The secularization of the Church also stimulated an extraordinary mystical response in both religious and secular circles especially in the Rhineland. Inner spiritual meaning was sought. Direct private relationships with God were experienced that did not require the mediation of the Church. The mystical movement was initially lead by people such as Meister Eckhart, Johann Tauler, and Heinrich Suso, Dominican brothers in the Rhineland (circa 1260-1360).

### **The Medieval Years: Consequences**

The powerful combination of scholasticism, humanism, and mysticism laid the groundwork for the Modern Age, the Renaissance, Reformation and Scientific Revolution; Scholasticism advanced the rational mind, humanism, the imaginative intelligence, and mysticism, spiritual insight.

#### **Assumptions: Late Medieval Years**

1. A double-truth universe exists: Religious truth and scientific truth constitute the two realms of truth.
2. Rational, imaginative, and spiritual realms are uniquely different. Each have their own value and worth.
3. The human being's role is noble in the universe once again.
4. Human beings are recognized as having the freedom to think independently and the ability to self-transform.
5. Universities exist as autonomous centres of culture and their purpose is the pursuit of knowledge.
6. The Church is a powerful bureaucracy.

### **Modern Age: The Renaissance**

The renaissance, "rebirth" or "revival" of learning and the arts emerged in Europe from a situation of enormous moral, cultural, and spiritual degeneration, economic depression and political unrest. The black plague, known as the "Black Death," of the fourteenth century had scourged Europe, wiping out between two-thirds and three-quarters of the entire population (Britannia, 1970, p. 1141).

Irrespective of the overwhelming odds leveled against humanity, advances in knowledge, creativity, and exploration happened at an unprecedented rate during the Renaissance. Individual genius and independence flourished as never before (Curtis, 1981a).

### **Renaissance Men**

Columbus, Leonardo da Vinci, Machiavelli, Copernicus, Michaelangelo, More, Raphael, Luther, all born within three decades (1452-1483) of one another, are examples of men who initiated the rich cultural evolution of the Renaissance. Others such as Bacon, Shakespeare, Galileo, and Kepler continued the evolution in the fifteen hundreds.

Characteristic of their work was the integration of the rational, aesthetic, and spiritual dimensions of life. Further, "they thrived on "decompartmentalization," maintaining no strict divisions between the different realms of human knowledge or experience" (Tarnas, 1993, p. 231).

### **Technical Advances and Consequences**

Four inventions of the Renaissance assisted in making the cultural revolution possible: the magnetic compass, gunpowder, the mechanical clock and the printing press .

The compass made possible navigation and the discovery of the "new world." "The artillery-supported the rise of separate but internally cohesive nation states...overthrowing feudal structures...(and) empowering secular forces against the Catholic Church" (Tarnas, 1993, p. 226). The mechanical clock not only changed humankind's relationship

with nature, work , and one another, it also provided a blueprint for the modern machine and a metaphor for conceptualizing the universe. Finally, the printing press made possible international communication and independent thinking and reflection on the part of the individual.

### **The Balancing and Synthesis of Opposites**

The Renaissance was an age where opposites were balanced and synthesized. The ancient and the modern were drawn together. The Christian and the pagan were integrated as seen in the art of Michaelangelo, Lenonardo, and Raphael. Science and art, science and religion, the sacred and the secular, poetry and politics were creatively woven together.

The brilliant synthesis of the rational, the aesthetic, the spiritual and the achievements of the age reflected a new spontaneous consciousness that bolstered individualism, and personal genius.

#### **Assumptions: Modern Age/Renaissance**

1. The rational, aesthetic, and spiritual are part of an indivisible whole.
2. Individualism and personal genius is valued and promoted.
3. The state is seen to be understood and controlled by human will and intelligence.
4. Reading and the printed word free people from the traditional ways of thinking and the collective control of thinking.
5. Exploration and exploitation of other countries increases power and prestige.



### **Modern Age: The Reformation**

The rise of lay mysticism and Church bureaucracy in the Medieval years and the growth of individualism in the Renaissance merged as Martin Luther (1483-1546), an Augustinian monk, fastened 95 Theses on the door of All Saints Church, Wittenburg, on October 31, 1517. The 95 Theses advocated "a spiritual, inward character of Christianity," rebelled against the Roman Catholic Church doctrine and policies supporting "indulgences," and effectively initiated the Reformation (Britannica, 1970, 14, p. 439). Western Christianity was permanently divided.

The Reformation was paradoxical and ambiguous on several accounts. The Protestant character was at once conservative in religious belief and radical in political behaviour. It was conservative yet critical. The intent of the movement was religious yet it profoundly secularized Western culture.

### **Individualism**

Luther, empowered by Renaissance individualism, radically furthered the notion of individualism. The individual was positioned "alone outside the church, and alone before God" (Tarnas, 1993, p. 239).

In this new position, Luther reckoned that religious authority was invested in the individual who, alone, could interpret scripture. There was no need for Church authority. The investment of individual authority in the human being ultimately established the importance of self-responsibility, self-legislation, individual rights, and the individual interpretation of truth (Curtis, 1981a).

## **Society**

Society as a whole underwent enormous change during the Reformation. Church power was handed over to the state. The "Protestant Work Ethic" was established which in turn increased productivity, the accumulation of capital, the rise of the middle class and capitalism. Individual rights were established.

Ignatius of Loyola founded the feared and esteemed Society of Jesus at the time of the Reformation. The early Jesuits, scholarly and well educated, sought to counter the Reformers and assure the continuity of Catholic theology and classical humanistic programs by establishing schools and universities throughout Europe.

## **Nature**

Nature was disenchanting and seen as an object to be dominated by the Reformers. The Reformers rejected the Hellenic belief of divinity's oneness with nature and supported "the biblical subjection of nature to man's domination, as found in Genesis ... encouraging man's sense of being the knowing subject against the object of nature" (Tarnas, 1993, p. 241). Their support of Ockham's separation of religion and science distanced God even further from a now mundane nature that could be coldly manipulated and studied. The Protestant passion for the discovery of unbiased objective scriptural truth ultimately supported a critical objective scientific mentality.

### **Assumptions: Modern Age/Reformation**

1. Religious pluralism is established.
2. Individualism is affirmed.

3. The self is increasingly the measure of things.
4. Nature is regarded as an object to be dominated by human beings.
5. The search for unbiased objective truth is stressed.
6. Duty, responsibility and obligation is valued. (Protestant work ethic)
7. State power is valued over church power.

### **Modern Age: The Scientific and Philosophical Revolutions**

#### **The Rise of Science**

Nicholaus Copernicus (1473-1543), a Polish astronomer and mathematician, spearheaded the Scientific Revolution and the rise of science with his resounding hypothesis of a Sun-centered universe.

**The ancient idea of a moving earth.** Copernicus became increasingly dissatisfied with the Aristotelian- Ptolemaic cosmology. He conceived it as a "monster-an inelegant and overburdened conception...which...failed to account for or predict observed planetary positions with reliable accuracy" (Tarnas, 1993, p. 248). He could not imagine the divine Creator devising such a disorderly system.

Careful examination of ancient manuscripts led Copernicus to discover the Pythagorean idea of a moving earth. This notion combined with his brilliant mathematical ability led to his thesis of a Sun-centered universe. The thesis was initially described in the "Commentariolus," a manuscript he circulated in 1530 and more fully in "De revolutionibus" printed in 1543, the year of his death (Britannica, 1970, as in Vol. 6, p. 467; Koestler, 1969).

**Protestant criticism.** Commentariolus was approved by Pope Clement VII, published and used as a reference in the universities. Luther and other reformers opposed the document as it conflicted with the literal interpretation of scripture and was based on Platonic philosophy that they completely rejected.

The Roman Catholic Church joined the opposition in the early part of the seventeenth century as the new thesis caused internal divisions in the Church. This choice later caused irreversible harm to the Church's intellectual and subsequently spiritual veracity.

### **Johannes Kepler (1571- 1630) and Galilei Galileo (1564-1642)**

Kepler and Galileo affirmed and developed the Copernican heliocentric theory in very different ways and provided the groundwork for Descartes and Newton's advancements.

#### **Kepler**

Kepler, a German astronomer and student of Tycho de Brahe, a Dane,, "vindicated the Copernican hypothesis....With elliptical orbits replacing the Ptolemaic circles, and with the law of equal areas replacing that of equal arcs..." (Tarnas, 1993, p. 257; Koestler, 1969).

#### **Galileo**

Galileo, an Italian mathematician, astronomer, and physicist, amassed sufficient evidence with the use of a telescope to validate the Copernican hypothesis.

**The language of science and physics.** Galileo, in addition, reestablished mathematical rationalism. He claimed that science and physics could not be known without understanding its language and characters. He claimed, "This language is mathematics, and the characters are triangles, circles, and other geometrical figures" (Capra, 1982, p. 55). He creatively combined mathematics with scientific experimentation and asserted that all descriptions should be measurable and quantifiable and all that could not be measured or quantified should be excluded from the scientific domain. He thus established a preoccupation with measurement and quantification that would last for the next four hundred years.

Although science has benefited immensely by Galileo's approach Capra (1982) reminds us of the "heavy toll we have paid for this single minded focus (p. 55)." He quotes R. D. Laing's apt remark, "Out go sight, sound, taste, touch, and smell along with them...aesthetics and ethical sensibility, values, quality, form; all feelings, motives, intentions, soul, consciousness, spirit. Experience as such is cast out of the realm of scientific discourse (p. 55)."

**The influence of the ancient atomists.** Galileo was also influenced by the ancient Atomists. The Atomists' theory of small indivisible particles moving about a void coincided with Galileo's findings of a vast universe of which planetary earth was only a small moving part. The atoms were characterized quantitatively and not qualitatively and moved about mechanically in the way that Galileo conceptualized science and the universe. Descartes and Newton were influenced by Galileo and the Atomists' world view (Copleston, 1985b).

### **Rene Descartes (1596-1650)**

The movement of the earth was an enigma to the philosophers and scientists from ancient times. Descartes, the French philosopher, in attempt to explain the motion of the earth further developed the theory of atomism. He determined that the atoms moving randomly about the void were in fact controlled by laws imposed upon them by God at the time of their creation. In determining this Descartes "created the conceptual framework...of the view of nature as a perfect machine governed by exact mathematical laws" (Capra, 1985, p. 63). Descartes added the final touches to the world that Galileo had begun to paint in the metaphor of a machine.

### **Sir Issac Newton (1642-1727)**

Newton developed the mathematical laws that explained Descartes "perfect machine." The machine could be completely explained "predicted with absolute certainty...and known in all details" (Tarnas, 1993, p. 66). The scene was set for the French positivist philosopher, Auguste Comte and ultimately the Vienna Circle, the logical positivists, and twentieth century thought.

## **The Philosophical Revolution**

### **The Rise of Reason.**

Philosophy acquired an entirely new identity as a result of the rise of science. Philosophy during the Classical Greek era remained relatively independent of, although influenced by, both science and religion; during the Medieval period it found itself largely influenced by and

subordinated to religion; in the Modern Age, "philosophy transferred its allegiance from religion to science" (Tarnas, 1993, p. 272).

Reason, elevated as the supreme authority by scientists and philosophers during the birth of the Modern Age, ultimately became the "cherished" concept of the Age of the Enlightenment (Bernstein, 1992, p. 38).

**Sir Francis Bacon (1561- 1626)**. Bacon, Lord Chancellor of England, profoundly changed the quest of science. The Ancients pursued the investigation of science to attain wisdom and virtue. Bacon's pursuit was power.

Bacon passionately believed that his God-given role was that of having dominion and control over nature. In Bacon's view nature "had to be hounded in her wonderings," "bound into service," and made a slave" (Capra, 1982, p. 56). And as Bernstein (1992) writes "the domination and control of nature inexorably becomes the domination of men over men (and indeed men over women) (p.42). He further points this out to be the "hidden logic" of Enlightenment reason.

Bacon rejected any philosophical system that deduced knowledge from rational or imaginative constructs. He believed knowledge could only be inductively arrived at through the unbiased analysis of concrete data. He established the rigorous empirical method of science that we know today: He formulated the method of experimenting, drawing conclusions, testing the conclusions with further experiment to determine facts.

Bacon became the first "Modern Realist" (see Appendix A) and forerunner of the British Empiricists. Although his roots derived from

Aristotle, the Ancient realist and Aquinas, the Religious Realist his philosophy somewhat differed. Like all realists he had an outer-oriented temperament, he oriented himself with data gained from the outside world. Like the other realists, he also gained his understanding of the world from concrete sense based experience. However, Bacon's approach was a scientific/inductive approach as opposed to Aquinas's religious/deductive approach and Aristotle's logico-verbal approach balancing religion and science.

**Descartes.** Descartes was the first Modern Idealist. He was concerned with mind over matter. Although naturally aware of external conditions, Descartes was oriented by subjective factors first and foremost. Consequently, he is known by his celebrated axiom, "Cogito, ergo sum," "I think, therefore I exist." Descartes initiated the modern concept of the self.

Tarnas succinctly concludes the consequences of Descartes' declaration, "Descartes enthroned human reason as the supreme authority in matters of knowledge, capable of distinguishing certain metaphysical truth and of achieving certain scientific understanding of the material world (p. 279)." The authority of scripture and the Church was handed over to human reason.

**Res Cogitans and res extensa.** Descartes based his world view on the fundamental difference between *res cogitans*- mind, human reason and *res extensa*- matter, objective reality. He believed God created both mind and matter, a belief that was eliminated by later scientists. Matter, the external world was a machine that was constructed



mechanically by God to run on its own and to be understood mathematically by humankind. He thus inadvertently freed the world from its association with religious belief. "The human mind and the natural world now stood autonomously as never before, separated from God and from each other" (Tarnas, 1993, p. 280).

**The mind/body duality.** The body being objective reality was also set apart from the mind. Descartes concluded, "there is nothing included in the concept of body that belongs to mind; and nothing in that of mind that belongs to the body" (Capra, 1982, p. 59). This notion set up a hierarchy between the mind and the body that has had far reaching consequences in twentieth century life. Higher value is placed on creative thoughtful work as opposed to manual labor. Industry exploits the body. Medicine treats either the mind or the body. Descartes did write "on the passions of the soul, and proposed a theory to explain the interaction between mind and body" (Copleston, 1985b, p. 11); his intent was not to separate the two from each other or from God.

**The cartesian anxiety.** Descartes, in the "Meditations", in his attempt to determine the Archimedean point upon which to secure our lives leads us to an unsettling realization. "Either there is some support for our being, a fixed foundation for our knowledge, or we cannot escape the forces of darkness that envelop us with madness, with intellectual and moral chaos" (Bernstein, 1985, p. 18).

Bernstein effectively argues that we continue to be in the grip of this "grand Either/Or" and that it is a misleading and distortive dichotomy. In the grand scheme, theorists tend to be objectivists, passionately looking

for a fixed point to appeal to or they are relativists who claim no such fixed point exists. In choosing a camp, the common interests between the two camps are lost sight of. Dialogue becomes self centered and polarized. In response Bernstein suggests we think Both/And. Bernstein also advocates that we think in terms of ourselves and our fellow human beings. Such a response would create effective dialogical communities in which we could look at differences, avoid absolute cleavages, and overcome the Cartesian Anxiety of Either/Or.

**The new world view.** The Scientific and Philosophical Revolution established the tenets of a new world view. Humanity entered the Age of the Enlightenment with a sense of optimism, freedom, and power.

**Assumptions: The Modern Age**

1. The universe is an impersonal phenomenon, governed by regular natural laws, and understandable in exclusively physical and mathematical terms.
2. God is far distant, the creator and architect of the universe, a supreme intelligence.
3. The human mind is capable of understanding the order of the universe.
4. The human mind and the natural world stand autonomously as never before, separated from God and from each other.
5. Rational thinking is valued over mystical, and spiritual experiences.
6. Human reason and empirical observation replace theological doctrine and scriptural revelation as a means of comprehending the universe.

7. Faith is severed from reason.
8. Religion and metaphysics are personal, subjective, speculative.
9. Emotional, aesthetic, ethical, volitional, relational, imaginative, epiphanic aspects of human nature are considered irrelevant, or distorted for an objective understanding of the world.
10. Knowledge of the world is a matter of impersonal scientific investigation.
11. Astronomy is severed from astrology.
12. The human beings intellect, psychology, spiritual independence is affirmed.

(source, Tarnas, 1993; Capra 1985; Copleston, 1985b)

#### **Assumptions: Cartesian-Newtonian Thought**

1. The whole can be understood from the properties of the parts.
2. There are fundamental structures and there are forces and mechanisms through which these interact thus giving rise to processes.
3. There is an inherent hierarchical order in nature.
4. Knowledge is understood in terms of a building metaphor.
5. This mechanistic paradigm implies linear causality.
6. The world is a wonderful machine.
7. Scientific knowledge can achieve absolute and final certainty.
8. Scientific descriptions are objective (i.e., independent of the human observer and the process of knowledge).
9. This paradigm implies that human action is not free but determined by motives regarded as external forces acting on the will.

(source 1, 2, 4, 7, 8, Capra, 1991) (3, 5, 9, Lincoln & Guba, 1985)

### **The Age of the Enlightenment**

The modern age from the Renaissance, through the reformation to the scientific and philosophical revolutions was one of optimism and creativity. The human mind was seen as being capable of understanding the universe and human nature. The individual human being became increasingly the measure of things exalting the individual and personal genius. The achievements of the age diminished the importance of God who was increasingly becoming far distant. Answers to the questions of life were increasingly being answered by science.

Little did people know how their optimism and their belief in the self and science would be challenged by the Age of the Enlightenment, an age of transformation of the modern era. The goals of the Enlightenment began to erode, the growth of science, technology, and industry altered reasoning, values, and undermined religion. The British empiricists and Kant relentlessly critiqued the human mind; the Romantics arose with a differing world view. Enlightenment thinking prepared the way for the radical change in thinking seen and experienced in the late nineteenth and twentieth century.

### **The Goals of the Enlightenment**

Marie Jean Antoine Nicolas de Caritat, Marquis de Condorcet (1743-1794), French mathematician, philosopher and revolutionary, provided us with a blueprint of the goals of the Enlightenment in his famous treatise, "Esquisse d'un Tableau Historique des Progress de L'esprit Humain," (Sketch for a Historical Picture of the Progress of the Human Mind). Condorcet envisioned that through the continuous progress of

reason, human beings can achieve perfection. Bernstein (1992) succinctly summarizes Condorcet's "utopian dream" his "hopes for the future condition of the human race (p.p. 33-34)." Bernstein writes,

This progress will never again be reversed as the linkage of reason, justice, virtue, equality, freedom, and happiness becomes stronger and stronger .... There will be the eventual abolition of all forms of pernicious inequality. There will be cultural, political, and economic equality among nations and within each nation...Public and private happiness will prevail .... even the elimination of sexual inequality .... War will be no more, peace will eternally reign. (p.34)

The progress of reason throughout history deeply impressed Condorcet as he traced humankind's achievements from the epoch of the hunters and fishers through to the epochs of the "Age of The Scientific Revolution." The works of great thinkers such as Descartes, Newton, Locke, and Rousseau stimulated Condorcet's dream and the possibilities of the future. He saw reason gaining strength through the work of philosophers, natural scientists, and finally culminating in "the moral and political sciences" (p.33).

The goals of the Enlightenment, autonomy, freedom, justice, equality, happiness and peace, (p.33) among and within nations and individuals, seems so distant as the twentieth century plays out its history. "Reason" and "rationality" are being associated with concepts such as "domination, oppression, repression, patriarchy, sterility, violence, totality, totalitarianism and even terror" (Bernstein, 1992, p. 32).

### **Reason, Science, Technology and the Birth of Positivism**

Auguste Comte (1798-1857), the French philosopher, upon contemplating the findings of the Age of the Scientific Revolution, drew up the charter for the Positivist Era based on three principles. Donald Schon (1983) summarizes the "three principle doctrines of positivism" as,

First, there was the conviction that empirical science was not just a form of knowledge but the only source of positive knowledge of the world. Second, there was the intention to cleanse men's minds of mysticism, superstition, and other forms of pseudo knowledge. And finally, there was the program of extending scientific knowledge and technical control to human society, to make technology, as Comte said, "no longer exclusively geometrical, mechanical or chemical, but also and primarily political and moral." (p. 32)

Comte's linkage of science, technology, and society was influenced by the work's of Bacon, Hobbes, Locke and his own interest in the social science, sociology which he established as a new subject.

The rise of science and technology linked with the Industrial Revolution "both the cause and consequence of the increasingly powerful scientific world view (Schon, 1983, p.31)."

The formidable combination of reason, science, technology, industry and the doctrine of Positivism culminated in a new "rationality," called Technical Rationality or Instrumental Rationality.

### **The Domination of Reason: Technical/Instrumental Rationality**

Instrumental rationality presumes that the world is like a machine which can be described objectively, controlled, manipulated, predicted.

It assumes that there is order in the universe and that there are fundamental laws and principles upon which we can base our understanding of the world. It assumes that "the whole can be understood from the properties of the parts" (Capra, 1991, p. xi) which can be measured and quantified. It is "oriented to ends, means and secondary results" (Bernstein, 1991, p. 39). Finally, it is based on the belief that "scientific knowledge could achieve absolute and total certainty" (Capra & Steindl-Rast, 1991, p. xiv).

Instrumental rationality has been used to great benefit to satisfy our technical needs and interests such as food production, development of drugs to control diseases, efficient ways to travel, computation.

However, when Instrumental rationality "relentlessly pressures and spreads" to literally every facet of "modern culture and society-including science, morality, law, politics, economics, administration, bureaucracy, even the arts" it poses a major problem (Bernstein, 1992, p.40). It becomes the dominant force not part of the whole. It threatens all of the goals of the Enlightenment, autonomy, freedom, justice, equality, happiness, and peace.

### **Ethics, Politics, and The Rise of Science**

From the time of the Greek thinkers, Plato and Aristotle, until the middle of the nineteenth century, "ethics and politics were designated as practical philosophy" (Benhabib, 1986, p. 1). Rational answers were given to questions pertaining to "the good life for the individual, and of the best social and political order for the collectivity" (p.1).

Gradually, throughout the Enlightenment, ethics and politics disintegrated into the study of politics, (political) economy, and morals.

"Material interests were emancipated from moral passions, and became the ruling passion" (p.6). Under the influence of science, instrumental rationality and positivism "practical philosophy lost its claim to reason" (p.1).

### **Reason and Instrumental Rationality: A Paradoxical Problem**

The authors and participants of the Enlightenment attempt to answer the question, "How ought I to act?" with a scientific answer.

"How ought I to act" is a normative question. Thus, it is concerned with norms, values, standards, the "moral wisdom" of social groups and individuals. By using instrumental rationality to answer this question "instrumental means are used to arrive at normative ends" (Bernstein, 1992, p. 37). The means to achieve normative ends were subjected to scientific experimentation in just the same way as they were in the natural sciences. The question "How ought I to act?" became a "scientific question" (p.34).

The Ancients included science as a part of the whole not the dominant force in reasoning. Subsequently, they did not mix up "practical wisdom, a general moral wisdom" with the wisdom used to understand science, "technical skill, and craftsmanship" (Chen, 1987, p. 184).

Karl-Otto Apel, a German philosopher and sociologist, succinctly writes (1980), "Norms cannot be derived from facts ... Science ... deals with facts ... Consequently, a scientific grounding of normative ethics is impossible" (p. 241).

Apel suggests that, "Anyone who reflects upon the relationship between science and ethics in the modern global industrial societies is, ... confronted with a paradoxical situation" (p.226). On the one hand there is



an urgent need for ethics as we face the consequences of technology and science. On the other hand it is not possible to address ethical issues using instrumental rationality as is attempted in the scientific age.

### **The Triumph of Secularism**

At the height of modernity, science and reason prevailed over religion and belief. Tarnas (1993, p. 305) captures the evolution of Christianity: "With Luther, the monolithic structure of the medieval Christian Church had cracked. With Copernicus and Galileo, the medieval cosmology itself had cracked. With Darwin, the Christian world view showed signs of collapsing altogether" (p. 305).

The Modern Age opened with the concept of the double-truth universe compartmentalizing religion and science into their distinct and separate realms. Throughout the age tensions increasingly grew between the two realms until science triumphed over religion.

The mechanistic world view diminished the credibility of Christianity. The personal approach of Christianity was lost to the logical explanations of an impersonal world. Faith became an unknowable transcendence. Controversies amongst the religious groups confounded the notion of agreement on universally valid religious truths. Revolutionaries interpreted the power of the clergy as impeding the progress of civilization. Rousseau grounded religion in nature. Marx advocated that religion was a delusion. Historical reviews punctuated the association between the violence of wars, slavery, the oppression of minority groups and Christianity's intolerance, repression, and creation of a dependent attitude (Curtis, 1981a; Preston, 1993; Tarnas, 1993). These and a host of other factors

worked together to the disfavour of Christianity and the triumph of secularism.

### **Assumptions: Early Enlightenment**

1. Through the continuous progress of reason human beings can achieve perfection.
2. The goals of the Age of the Enlightenment are autonomy, freedom, justice, equality, happiness, and peace among and within individuals and nations.
3. Empirical science is the only source of positive knowledge.
4. Scientific knowledge can achieve absolute and total certainty.
5. Scientific knowledge and technology are capable of controlling all of human society.
6. "How ought I to act?" is a scientific question.
7. Material interests become the ruling passion.
8. Means take precedent over ends.
9. Secularism is triumphant over religion.

### **The Critique of Reason**

**The Empiricists and the Rationalists.** The British Empiricists, Locke (1632-1704), Berkley (1685-1753), and Hume (1711-1776) followed in the footsteps of the philosophical school of Realism emphasizing the external world and sensory experience. Kant (1724-1804), a Continental Rationalist, followed in the footsteps of the school of Idealism as developed by Descartes, Spinoza and Leibniz and emphasized the mind and its ability to achieve sure and certain knowledge. Kant, in his famous

treatise "The Critique of Pure Reason" (1781), attempted to synthesize the two schools of thought. In addition to the synthesis of empiricism and rationalism, Kant attempted to reconcile science and God.

**Hume's conclusion.** Hume's conclusion of his examination of reason was "all that man has to base his knowledge on is impressions in the mind and he cannot assume to know what exists beyond those impressions" (Tarnas, 1993, p. 337). He had started from sensory experience and applied Newtonian scientific principles and ended in concluding that all knowledge was just opinion, there was no correspondence between what was in the mind and what was in the world (Copleston, 1985b; Dunn, Urmson, & Ayer, 1992).

**Kant's response.** The driving question for Kant after contemplating Hume's writings became "How was certain knowledge possible in a phenomenal universe?" (Tarnas, 1993, p. 342). Kant, in a truly constructivist spirit, determined that the mind does not passively receive sense data from the world. Rather the world addressed by the mind conforms to principles in the mind. The mind had a frame of reference within which it considered sense data from the world.

Kant claimed that the absolute principles in the mind preexisted experience. They were not derived from experience, they were à priori to experience. The two fundamental à priori principles were space and time. Other à priori principles that experience conformed to included cause and effect, substance, quantity and relation. Thus experience was "a construction of the mind imposed on sensation" (Tarnas, 1993, p.344; Copleston, 1985b; Nagy, 1991).

**Implications of the response.** Kant interconnected the à priori structures of rationalism with the sensory evidence of empiricism. However, in doing so, Kant demonstrated that all human observations were subjective as opposed to objective. He had "joined the knower and the known, but not the knower to any objective reality, to the object itself" (Tarnas, 1993, p. 348). Also, Kant could not prove that human reality was connected to any universal or transcendent reality. Knowing God became strictly a matter of faith. As a result "Man was again at the center of his universe, but his was only *his* universe, not *the* universe" (Tarnas, 1993, p. 349).

In attempting to join the empiricists and the rationalists, science and God, Kant had unintentionally deepened the split between mind and matter, thus the human being and God, and science and God.

**Long-term implications of Kantian philosophy.** The task of philosophers after Kant became "the investigation of the formal structure of the mind" (Tarnas, 1993, p. 347). Philosophers pursued the study of linguistics, logic and the philosophy of science.

Kant punctuated the impossibility of the mind knowing "things in themselves." Knowledge became a matter of interpretation relative to the individual based upon the à priori concepts of space and time within individual's mind. Within Kant's Cartesian-Newtonian frame of reference the possibility of à priori absolutes existed, the possibility of some foundation.

<p align="center"><b><u>Assumptions: Enlightenment/Kant</u></b></p>
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|---|
| <p>1. Absolute à priori principles exist in the mind.</p> |
|---|

2. Experience is a construction of the mind imposed on sensation.
3. Knowledge is a matter of interpretation.
4. All human observations are subjective. The observations of the world are never neutral, never free à priori conceptual judgments.
5. The world conforms to principles of the mind.
6. Objective reality cannot be known in and of itself.
7. The split between mind and matter deepens.

(source, Copleston, 1985b; Nagy, 1992; Tarnas, 1993)

### **Another Culture: Romanticism**

The force and voice of romanticism has influenced and shaped the Western mind along side that of science as it has ebbed and coursed its way throughout ages. It has been ever present and is ever strengthening.

Homer, Hesoid, Shakespeare, Rousseau, Goethe, Hegel, Blake, Byron, Shelley, Keats, Wollstonecraft, Browning, Barrett, Ibsen, Woolf, Bach, Mozart, Wagner, Michaelangelo, Constable, Van Gogh and many others up to the present era have sought to understand the world as a living vibrant whole in the midst of the drama of life. They have reached into their imaginative, spiritual, emotional depths to portray life in its fullness.

**Romanticism: The polar opposite.** Romanticism presents the polar opposite of the scientific world view. The Western mind represents the grand interaction between the two world views. Romantic's intuition, imagination, and feeling join the sense perception and thinking of the scientist. The interior world of the artist joins the external world of the scientist.

Both the romantic and the scientist seek to understand the world and human nature, assumptions and hidden meaning. Each comprehends the world and others in radically differing ways.

The scientist looked to Ancient Greece for facts and figures to design a mechanical world view based on laws. The Romantic looked to Ancient times and discovered myth, mystery and insight.

The characters of myth and mystery live timelessly on in the world of the Romantic, disclosing their insights, creating their moments of "Aha!" as reader, writer, musician, and artist intuitively grasp their meaning. Richard Wagner (1813-1883) searched through Teutonic and Norse mythology for material for his epic "Der Ring des Nibelungen" (The Nibelungs's Ring) (Solti, 1972, p. 6). Led by his totally Dionysian archetype, Wagner captured love betrayed, broken promises, magic spells, lust for power, fear and angst. In a few strokes of music he uncannily suggested "a person, an emotion, or an idea; an object-the gold, the ring, the sword; or a landscape-the Rhine, Valhalla, the lonely shore of Tristan's home" (Machlis & Forney, 1990, p. 374).

People, events, and experience are entered into and appreciated as being unique, complex, and constantly changing by the romantic. There is no one truth for the romantic, many voices and perspectives add to truth. Opposites and paradoxes are sought. The Romantic stands in direct contrast to the scientist who seeks to distance himself/herself self from the object, analyze it, and theoretically explain it with the voice of authority.

Giuseppe Verdi (1813-1901) scribed, "It is better to invent reality than to copy it" (Machlis & Forney, 1990, p. 359) capturing the Romantic idea that reality is an innovation not a copy. He further captured the essence

of feeling in Romantic thought when he exclaimed, "Success is impossible for me if I cannot write as my heart dictates" (p.361). Johannes Brahms (1833-1897), in speaking of "A German Requiem," said "I had all humanity in mind (p. 355)" punctuating the holistic sense of the Romantic mind.

The artist moves people to see new constructions of reality, see new balances, syntheses, maintain the status quo or transform. Rilke, upon seeing Apollo's statue for the first time wrote, "You must change your life" (LeShan & Margenau, 1982, p. 175). Goethe wrote, "Poetry does not move us to be just or unjust, in itself. It moves us to thoughts in whose light justice and injustice are seen with a fearful sharpness of outline" (p. 175).

**Goethe and Hegel.** Goethe (1749-1832) and Hegel (1770-1831) each advanced the notions of romanticism and Kant's constructivist view of knowledge. Both were committed to the quest of Enlightenment science. Each sought to transcend the dualism's of Western thought. Goethe aimed at "a humanizing supplement, an understanding of nature in all its qualitative manifestations...his most impassioned plea was for a concert of all the sciences, a co-operation of all types of method and mind" (Britannica, 1970, as in Vol. 10, p. 528). He creatively demonstrated the concert of the sciences, a most difficult task, in one of his greatest works, "Faust." In writing the legend, Goethe drew on theology, mythology, philosophy, politics, economics, science, aesthetics, music, and literature.

Goethe and Hegel recognized the human mind's participation in the construction of knowledge. They also recognized nature's participation in the construction of knowledge. They understood nature to permeate everything including the human mind and imagination. The

human being and nature mutually created reality. "Nature's truth does not exist as something independent and objective, but is revealed in the very act of human cognition" (Tarnas, 1993, p. 378). Hegel further declared that the Universal Spirit/Mind (Geist), whom he considered to be God, unfolded itself in nature and the human spirit. Thus, Hegel not only united human beings and nature but also human beings and God.

Hegel constructed a system of philosophy in which "all things unfolded in a continuing evolutionary process whereby every state of being inevitably brings forth its opposite" and ultimately integrates the opposites and transcends them "in a richer and higher synthesis" (Tarnas, 1993, p. 379). At each level of synthesis opposites are generated and further synthesis occurs and is transcended. Subsequently human beings and the world are always in a process of completing themselves.

**Romanticism's fate.** Toward the end of the Age of the Enlightenment Romanticism began to lose ground and give way to other movements such as existentialism, Marxism, pragmatism, logical positivism, and linguistic analysis. Yet, as will be seen in our present era, Romanticism has not only participated in shaping our Western mind, it is slowly reengaging it.

**Assumptions: Enlightenment/Romanticism**

1. The world is a unitary living organism.
2. Nature is a mystery, a revelation.
3. God is a numinous creative force within nature and the human spirit.



4. The human being is valued for his/her imagination, spiritual aspirations, emotional depth, and artistic creativity.
5. Imagination and will are valued equally and/or more than intellect and will by romanticists.
6. The human being's power of self-expression and self-creation is recognized.
7. There exists a plurality of perspectives through which the world can be interpreted.
8. Truth is something that is created, not proved or disapproved.
9. Truth is radically paradoxical.
10. The Classical culture is a living realm of Olympian images and personalities.
11. The world is always in a process of completing itself.

(source, LeShan & Margenau, 1982; Machlis, 1990; Tarnas, 1993)

### **The Twentieth Century: The Postmodern World**

The authors of the Modern Age and the Age of the Enlightenment provided "the means for systematically acting on the world, for predicting and modifying the course of natural processes, for conceiving devices that can harness and exploit the forces and material resources of nature" (Prigogine & Stengers, 1988, p. 37). They explored and extended the beliefs, myths, and mysteries of the ancient world in establishing the new scientific world view. They fervently held the belief that the pursuit of science would provide human beings with absolute answers about the universe and human nature, answers that would lead to unprecedented power and freedom.

This ardent belief in science led to an "ethos of positivism," a belief that technical/instrumental rationality could be used to address the issues and problems arising in science, the social sciences, politics, economics...all of life. Religion and the aesthetic ideas of the Romantics were devalued. The Kosmos was no longer a living organism "full of mysterious and powerful forces," the human being no longer "possessed a richness and dignity which came from his sense of participation in the movements of these forces" (Guthrie, 1988a, p. 212).

The consequences of the powerful combination of the Scientific and Technological Revolution and the Industrial Revolution radically altered Condorcet's "apocalyptic vision" of the future (Bernstein, 1992, p. 35). The combination resulted in a bureaucratic phenomenon that reinforced technical/instrumental rationality and profoundly effected public and private life. Max Weber (1864-1920), a German sociologist and political economist, warned that technical/instrumental rationality in the grip of organizations would "shape every aspect of our everyday lives" it would become the "iron cage" which threatens freedom, democracy, and even has the potential for undermining the very existence of the autonomous individual" (Bernstein, 1992, p. 40). He furthermore saw professional knowledge would be caught in the trap of technical expertise (Schon, 1983). Today we have seen the rise of elite groups of "experts" who have become more and more specialized resulting in the average human being becoming increasingly more dependent upon them.

The hidden ethos of the Enlightenment "domination" has become increasingly more evident throughout the twentieth century as has the problem of the cherished concept of the Enlightenment "Reason."

Prolific research and development in all fields throughout the twentieth century has paradoxically amplified the negative consequences of reason and promoted domination. Yet, it has revealed possibilities for the transformation of the twentieth century Western mind and the future of the human race.

### **The Postmodern Situation**

"Our vision of nature is undergoing a radical change toward the multiple, the temporal, and the complex ... We now understand that we live in a pluralistic world" (Prigogine and Stengers, 1984, p. xxvii). Within this context we are constantly "deconstructing" our situation to better understand it. We are discovering that our existing rules are failing. Our frameworks are blurring, the logical conclusions that have worked in the past no longer fit our situation. Kuhn (1962) clearly describes this kind of situation as a crisis (see Appendix B). In the midst of our deconstruction and chaos ideas are arising from which a new paradigm, a new frame of reference may emerge.

In broad brush strokes discoveries in science and psychiatry will be highlighted that both increase our instability but may hold possibility for the future. They are considered in terms of their "deconstructive, destabilizing sense" in the following paragraphs. The predominant assumptions of the postmodern mind are outlined.

John Dewey (1859-1952), a forerunner of the postmodern mind, is then briefly discussed. Dewey fully grasped the problems of the age yet held forth a hopeful philosophy that is just now beginning to unfold. The "reconstructive" discoveries of our times are then discussed within the context of the conclusion of this section, the "history of the development

of Western thought" and within the context of themes that have arisen and are applicable to both transformation theory and this research study.

**Absolute and sure foundations removed.** Toward the end of the nineteenth century the extraordinary scientific discoveries of Michael Faraday, Clerk Maxwell, and Albert Einstein began to erode the fundamental concepts of Cartesian-Newtonian theory and pave the way for the discoveries of quantum mechanics physics and a new scientific world view (see Appendix B). During the last half of this century Ilya Prigogine, Nobel Prize winner in 1977 for his work on the thermodynamics of non equilibrium systems, added to the understanding of the new scientific world view (Prigogine 1980).

Quantum theory findings revealed that the subatomic world of the atom was made up of "abstract entities that have a dual aspect" (Capra, 1982, p. 78). The dual nature of the subatomic unit was paradoxical, it was at once "particles confined in a small volume" and "wave forms spreading over huge expanses of space" (p.79). The idea of atoms being solid, indivisible, and independent was unfounded.

Further, "the concept of three dimensional space and unidimensional time had become relative aspects of a four dimensional space-time continuum" (Tarnas, 1993, p. 356). Prigogine, who has had a lifetime interest in the concept of time, punctuated the different concepts of time, "time as motion, as in dynamics; time related to irreversibility, as in thermodynamics; time as history, as in biology and sociology" (Prigogine, 1980, p. xii).

Kant's à priori concepts of space and time understood within the context of Cartesian-Newtonian thought were no longer feasible. The

final strands bridging the subject-object relationship were destroyed. Things could not be known in and of themselves. The mind was on its own. There were no longer certain foundations of knowledge (Tarnas, 1993, p. 417; Hawking, 1988; Prigogine, 1980).

### **Assumptions: Quantum Mechanics Physics**

1. The property of the parts can only be understood from the dynamics of the whole. Ultimately there are no parts at all. What we call a part is merely a pattern in an unseparable web of relationships.
2. Every structure is seen as the manifestation of an underlying process. The entire web of relationships is intrinsically dynamic.
3. Order in nature tends to be heterarchical.
4. The metaphor of knowledge is perceived as a network.
5. Causality is understood to be mutual. Causality includes the concepts of feedback and "feed forward."
6. All theories, concepts, and findings are limited and approximate.
7. The process of knowledge should be explicitly declared as part of descriptions of natural phenomena and theories.
8. Ambiguity about the future is a condition of nature.

(source, 1, 2, 4, 6, 7, Capra & Steindler-Rast, 1991) (3, 5, 8, Lincoln and Guba, 1985)

**Freud, Marx and the unconscious.** One of Freud's "most original contributions to general psychology" was his theory of the unconscious (Gay, 1988, p. 366). Although the unconscious or "subconscious" concept of the mind had a long and prestigious history in the world of philosophy,

literature, and poetry, Freud brought it to the forefront and attention of the Western mind. This secret mental domain could account for such "diverse phenomena as hypnotism, dreams, slips of the tongue and pen, symptomatic acts and self-contradictory and seemingly irrational behaviour" (Gay, 1988, p. 367). On the one hand it brought "human consciousness under the light of rational investigation" (Tarnas, 1993, p. 328). On the other hand it further undermined the cherished reason of the Enlightenment insofar as it exposed an aspect of behaviour that was not under the control of conscious rationality.

This aspect of the personal unconscious was mirrored in Marx's exposure of the "social unconscious" in his philosophy of history (Tarnas, 1993, p. 329). Now, unconscious political and economic forces were seen to influence behaviour, forces beyond human rational control.

**The postmodern mind.** Although the postmodern mind is described as being divergent, multiple, pluralistic and is difficult to capture, it does have assumptions that characterize it. These assumptions determine how knowledge and reality are perceived and how human beings engage in creating knowledge and reality.

The assumptions arise particularly from philosophy. They reflect research and development in pragmatism, hermeneutics, critical theory, deconstructivism, psychoanalysis, feminism, and linguistics.

**Assumptions: The Postmodern Mind**

1. Human knowledge is subjectively determined by a multitude of factors.
2. All truths and assumptions must be continually subjected to direct testing.
3. The quest for knowledge is endlessly self-revising.
4. Knowledge is relative and fallible.
5. There is lack of any firm ground for a world view.
6. No perspective, rational, aesthetic, spiritual has the upper hand.
7. Grand theories and universal overviews cannot be sustained without producing empirical falsification and intellectual authoritarianism.
8. Despair of any integrated outlook and attitude is the chief characteristic of the age.
9. Human beings are agents always and necessarily engaged in reality, thereby at once transforming it while being transformed.
10. The inherent human capacity for concept and symbol formation is recognized as a fundamental and necessary element of human understanding, anticipation, and creation of reality.
11. Human beings exist in a universe that is utterly open.
12. The underlying ethos is one of disassembling established structures, deflating pretenses, exploding beliefs, unmasking appearances.

(source, Friedman, 1991; Gay, 1988; Lather, 1991; Prigogine, 1980; Tarnas,

1993)

**Further Assumptions: The Postmodern Mind**

1. The Cartesian-Newtonian frame of reference remains the most influential paradigm of Western thought.
2. Bureaucracies in the private and public sector are powerful.
3. A bureaucratic mind, not a human mind, exploits, manipulates, and objectifies human beings, all of life, including the environment.
4. Human beings are influenced to exploit, manipulate, and objectify themselves and others.
5. Professional knowledge is in the grip of technical/instrumental rationality and caught in the trap of technical expertise.
6. Experts are inordinately depended upon by non-experts.
7. The hidden ethos of the Enlightenment is domination.
8. Personal and social unconscious forces influence human thinking and behaviour.

(Source, Schon, 1983; Habermas, 1984, 1987, 1992; Bernstein, 1992)

**John Dewey: The American Pragmatist.** John Dewey (1859-1952), American philosopher, psychologist and educator, a forerunner of the contemporary postmodern philosopher, realized with clarity the problems faced by the twentieth century Western world. He saw the split between the subject and object, the human being and nature, social praxis and science. He recognized that despair of any integrated outlook and attitude is the chief intellectual characteristic of the present age.

Dewey considered that the dichotomies experienced by the Western world arose from "the quest for certainty, indubitability, eternality" (Filson, 1990, p. 63). He advocated for the consideration of experience as



an integral whole. Experience was constantly enriched and always unfinished. Meanings, interrelationships, and interconnections were valued. Dewey's pragmatism represented a radical departure from the Cartesian-Newtonian world view.

Dewey approached the fragmentation, discontinuities, and loss of meaning of the times with a truly constructivist spirit. He believed that reflection on the past, reconstruction of the present and a vision of the future were important aspects of the inquiry process. Dewey placed inquiry within the context of the particular situation and took into account all aspects of the situation. He advocated for a democratic spirit, a way of living and working together that heightened solidarity and individuality within the context of inquiry and all of life.

Dewey, thought of philosophy as having more to do with vision, imagination, and meaning (rather than Truth), with gaining a critical perspective on the deepest problems and conflicts in society and culture, and with projecting ideals for achieving a more desirable future. (Bernstein, 1986, p. 262)

Dewey was a man before his time and his spirit is worth returning to.

### **Conclusion: Themes and Threads of Hope**

#### **Integration: The Reunion of Opposites**

Time and concepts have radically distanced us from the unified and beautiful Kosmos of the Presocratics where "the whole of Nature was akin." The moment in time when subject and object distinctions held no

meaning seems so far removed and yet so deeply appealing and paradoxically near.

In the course of two millennia the "new critical consciousness of the Greek Enlightenment mind" has expanded beyond imagination. That critical consciousness has enabled human beings to walk and revel in the outer realms of the Kosmos that once were reserved just for the ancient gods of myth and mystery. At the same time it has separated us from nature, the divine, and one another.

The dichotomy between subject and object is both the cause and consequence of the differences between people and cultures. The differences and ruptures between inner and outer temperaments, the conscious and unconscious, logos and eros, male and female, science and romanticism, East and West have played a role in profoundly removing us from a sense of a unified whole Kosmos.

The Copernican cosmology, Descartes' conclusion, "Cogito, ergo sum," and Kant's resolve that "all human knowledge is interpretive" progressively set the human being "once the noble center of the universe spinning adrift," alone and isolated in an impersonal universe (Tarnas, 1993, p. 418).

Slowly emerging in our postmodern age is an appeal to integrate the rational, aesthetic, and spiritual. There is an appeal for the synthesis of opposites, inner and outer temperaments, conscious and unconscious, logos and eros, male and female, science and romanticism. Kant's valiant attempt to synthesize the empiricist and the rationalist, science and God, and Goethe's and Hegel's attempts to transcend the dualities of the Western mind have stirred and stimulated Western thinkers. Dewey and Jung (amongst the forerunners), Prigogine, Capra, Tarnas, Habermas,

Bernstein, Mezirow and a host of other people have risen to respond to the appeal to reconsider, to reunite. This appeal is reflective of Socrates' philosophy which uniquely synthesized the eros and logos: a synthesis of passion and mind, friendship and argument, desire and truth.

Voices emerging from the rational, aesthetic, and spiritual realms are accumulating on the stage of the Western world. The voices and messages are different. For the most part the voices are not "in concert"; they are often confusing and chaotic; synthesis has not occurred. However, the harmonious strains of leitmotifs are arising above the confusion and chaos.

We are hearing more definitely the appeal of the leitmotifs of autonomy and solidarity. On the one hand are heard the voices of women, people of colour, minority groups, indigenous people and people of popular culture, whose voices have been silent or faintly heard in the course of Western history, demanding autonomy and representation (Asher, DeSalvo, Ruddick, 1984; Belenky, Clinchy, Goldberger, Tarule, 1986; Gilligan, 1982; Lerner, 1986; Ruddick and Daniels, 1977; Silverman, 1990).

On the other hand there is an appeal for solidarity that will hopefully bring the autonomous voices together. Ways of promoting democracy, communication, and ethics are being stressed. Habermas is extensively exploring and developing a theory of communicative action, and discourse ethics (1979, 1984, 1987, 1990, 1993) (see Appendix C); Benhabib is exploring discourse ethics within the context of Habermas's theory, feminism, and the problem of universals and particulars (1986, 1992); The notion of the importance of Eros/Friendship/Caring and communication is being emphasized (Bloom, 1993; Noddings, 1984).

We are hearing in concert the voice of two selves, the alienated autonomous self and the connected, whole self. The one self that has been fractured, fragmented, wounded, and alienated by virtue of the mechanistic world view is clearly heard: Lasch (1979) and Bloom (1988) explore the devastating effects of such a view of the self within the context of society; May (1973, 1986, 1989) and Masterson (1988) poignantly describe the self and ways to overcome the pathologies of the self. The voice of the creative, narrative self has been heard in the literature, poetry, art, and music of the Romantics, the work of Jacques Lacan (1975) and the French feminists, Julia Kristeva (1984), Luce Irigaray amongst others.

Various syntheses are seen in the seminal work of Carl Gustav Jung (1875-1961), Swiss psychologist and psychiatrist. Jung (Campbell, 1987) provided us with new insight into the inner and outer temperaments in psychological type theory. He has further provided us with insight into integrating the inner and outer temperaments in his thesis on individuation. His work on the collective unconscious, the content of which is made up "essentially of archetypes" has also connected us with our rich Presocratic and Classical Greek heritage, opened up the realm of the imagination, and interconnected us with the Eastern mind (Campbell, 1987; Jung, 1978; Nagy, 1991; Storr, 1983). Jungian theory of archetypes lends new credibility to the Platonic notion of universals and Kant's *a priori* principles of the mind. Jung's later work identified archetypal patterns in nature as well as in the psyche "further dissolving the subject-object dichotomy" (Tarnas, 1993, p. 425).

Our moment in history is one of anticipation. Perhaps we are nearing the "revolutionary moment" when order will spontaneously arise

out of chaos as we move to a higher level of synthesis (see Appendix D). Perhaps then we will better understand the meaning of Prigogine and Stenger's (1988) scientific findings in the field of thermodynamics that "time and eternity, chance and necessity, order and chaos are all partners in destiny."

**Assumption: Integration**

1. Our world is pluralistic and chaotic.
2. Integration of the rational, aesthetic, and spiritual realms may possibly lead to order out of the chaos.
3. Synthesis of opposites such as inner and outer temperaments conscious and unconscious, logos and eros, male and female, science and romanticism, West and East may lead to order out of chaos.
4. Solidarity is the uniting of autonomous voices.

source (Campbell, 1987; Capra, 1988; Habermas, 1984, 1989; Prigogine and Stengers, 1988; Tarnas, 1993)

### **Transformation Theory and the Development of the Western Mind**

Transformation theory reflects and illuminates the most progressive assumptions of the current Western mind, those of integration, that acknowledge unity and diversity and constructivism. The theory models and appeals for integration of the rational, aesthetic, and the spiritual realms. The assumptions that underlie the framework of transformation theory reflect those of constructivist thought, quantum mechanics, dissipative structures, Khunian theory.

### **Integration: The Rational, Aesthetic, Spiritual**

Transformation theory "incorporates ideas from a wide range of writers" (Mezirow, 1991b, p. xv). The constellation of theories find representation in the rational, aesthetic, and spiritual realms. Mezirow stresses, "I would like the ideas presented here to be understood in relationship to one another and to our common experience rather than assessed for their fidelity to a particular intellectual tradition, theory, or discipline" (p. xv).

Mezirow's request to understand the theories in relationship and not within their own traditions is a request to integrate. Integration of the rational, aesthetic, and spiritual realms resulted in unprecedented creativity at the time of Socrates and the birth of philosophy and during the Renaissance.

The communication and cooperation that is necessitated by integration is reminiscent of Prigogine's molecules that suddenly begin to communicate and cooperate just preceding the "revolutionary moment" that they leap into a new and more differentiated level of organization, into a higher synthesis.

The uniting of the rational, aesthetic, and spiritual realms on the "common ground of experience" calls for a dissolving of barriers between the subject and the object, one another and disciplines. Such a union necessitates learning to communicate with one another democratically. Integration creates opportunities for the application of universal or ideal learning conditions such as Mezirow has developed and/or speech acts such as Habermas has developed (see Appendix C). Such applications join the universal and the particular. Integration calls for networking.

### **The Transformative Process: Deconstruction and Reconstruction**

Transformation theory promotes radical deconstruction of our situation down to "the very roots of the preconceptions which formulate our conduct" (Mezirow, 1991b, p. 196). This "deconstruction" is encouraged to take place across the panorama of our whole experience, past and present, rational, aesthetic, and spiritual as we search for assumptions underlying our thoughts and actions.

Transformation theory draws on the fields of critical theory and the cognitive revolution in psychology and psychiatry to assist us in the deconstructive and reconstructive phase of the transformation process. Examples and literature are provided that support critical rational deconstruction, reflect and highlight Freudian and existential theories, developmental theories, Dewey's seminal work on reflection, aspects of Habermas's theories of knowledge and human interests and communicative action, and many other theorists (Mezirow, 1991a; 1991b).

My suggestion is that Jung's seminal work on the collective unconscious would enhance the entire transformative process and add an aesthetic dimension to it. Mezirow has incorporated the work completed by Boyd and Myers (1988) in his discussion on perspective transformation. These researchers have drawn on Jung's theory and attempted to relate it to understanding the process of discernment, a nonrational process.

Mezirow's theory of transformation draws on both the Kantian and Hegelian notions of constructivism, emphasizing the mutual participation in the creation of reality between the person and his/her environment. Jungian theory would further enhance an understanding of the creation

of reality. Jung unites the conscious and unconscious, the person and the past, the person and nature, and the Eastern and Western minds in his theory of the collective unconscious.

The transformative process presented in Mezirow's research (1978) on women's re-entry programs in community colleges and in his latest book (1990b) describes a process of transformation that is reminiscent of Kuhn's seminal work (1962) on scientific revolutions and Prigogine's work on dissipative structures. All three theories emphasize the fact that it is possible for order to spontaneously arise out of chaos. They each stress that the new order does not emerge from the old order but is an "entirely new construction." Mezirow and Prigogine stress the irreversibility of the process. All three theories are hopeful; they imply that we are "not caught in our own histories."

### **The Anticipation of Innovative Change**

Transformation theory's transformation process creates an atmosphere of possibility, innovation, and change for the individual and groups. The constellation of theories also anticipates change as it is set up to accommodate new theories and change within theories as theorists emerge or change to accommodate to the rapidly changing environment in which we live.

Mezirow is currently responding to the "postmodern intellectual milieu" which is "rethinking the nature of imagination, carried out on many fronts-and spurred perhaps above all by the work of Jung and post-Jungian depth psychology. Perception and reason are now recognized as being always informed by the imagination" (Tarnas, 1993, p.405) and the transactions that occur to test out the imaginative ideas. The rational



cognitive activities are well developed in transformation theory; the aesthetic is now being addressed in greater depth leaving the spiritual activity to be yet developed in depth.

### **The Development of the Western Mind and This Research Study**

The review of history to understand the development of the Western mind while searching for assumptions addressed research questions posed and aspects of the design of the study. These are discussed as follows:

#### **What is an Assumption?**

The fundamental dilemma underlying this research study was the inability to articulate an assumption underlying experience. A basic question is "What is an assumption?" An assumption according to The Oxford Encyclopedic English Dictionary (Hawkins & Allen, 1991) is: "1) the act or instance of assuming; 2a) The act or an instance of accepting without proof. 2b) A thing assumed this way" (p. 82). To "assume" is defined as "take or accept as being true, without proof, for the purpose of argument or action" (p. 82). "Assumptive" is an adjective meaning "taken for granted" (p. 82). Cranton (1992) clarifies that an assumption is "something taken for granted a supposition," and further clarifies that "a perspective is based on a set of assumptions and determines the way we live in the world and understand what we experience" and that "values come from assumptions and perspectives" (p. 150).

Throughout this exploration of the Western tradition assumptions were searched for. The assumptions that were found generally fell into four categories: assumptions about the universe, about the way reality

was perceived, about knowledge, and views about the self. It was found that these sets of assumptions were interdependent and difficult to separate out into categories as just described. Further, it was found that assumptions existed that tended to be embedded more deeply than the ones categorized according to the universe, reality, knowledge, and the self.

The more deeply embedded assumptions were those about the subject-object relationship and about unity and diversity. Basic to unity and diversity was the notion of opposites and the tension and synthesis of opposites. Many attempts were made to synthesize opposites from Heraclitus, through Socrates, Kant, the romantics, Jung, and the quantum theorists. It appeared that the way subject-object relationship and the tension of opposites were conceived deeply affected many aspects of life, the personal and the collective, psychological, sociolinguistic, and disciplines.

The search resulted in a bank of assumptions being developed that have informed the Western mind over the ages. Two further realizations occurred in the process of the review. One, today all the assumptions are "gathering now on the stage as if for some kind of climactic synthesis" (Tarnas, 1993, p. 403). The assumptions from our distant past are recognized as having value and are reappearing, making the search even more worthwhile.

Secondly, the assumptions that were revealed had a generic quality about them, a timelessness. Many kept reappearing often in a different costume but creating a sense of *déjà vu*. They were decontextualized, they effected and were affected by many differing aspects of life. They worked together to create a whole. Scientific,

religious, aesthetic assumptions were interrelated and interconnected in the grand web of life.

The assumptions often related to the will to live, the will to create, the will to power. They revealed enduring human temperaments, and opposite orientations. The assumptions complimented one another, and all were necessary for the whole. Creativity, curiosity, imagination was stimulated by the interaction amongst the assumptions and diminished by a single-minded focus.

As assumptions were contemplated they helped to make sense of experience and theories. They created many insightful "Ahas" An understanding, for example, of Mezirow's intent and theory was deeply enhanced by the search, the intuitive sense of its value was confirmed.

The assumptions identified raised the questions, "What other assumptions influenced the Western tradition other than those identified?" "What other assumptions are there than the subject-object relationship and the notion of opposites, unity and diversity?" "Are there assumptions more deeply embedded than at the subject-object relationship level?" The autonomous search also emphasized the need for a collaborative approach to search for and identify assumptions. People with backgrounds in disciplines such as anthropology, philosophy, theology, and science working together would have deepened and enriched the process and the findings.

### **Three Research Questions**

The first three research questions were addressed by the historical search.

### **What is Transformation Theory About?**

Transformation theory is about searching for meaning in life. It is about understanding our roots. It is about growing and developing individually and collectively as we "leap" from one level of synthesis to the next. It is about being receptive and imaginative and yet being critically and caringly involved in all of life. It is about being and becoming. The questions are raised: "What is cognitive, moral, and social, progress?" "What are the goals and aims of society that motivate transformation and how are they determined?"

### **Why is Transformation Theory Important Today?**

Tensions, differences, and, often, chaos mark our situation today. Transformation theory offers the possibility of changing that reality individually and collectively, such hope is important in today's world. Transformation responds creatively to the opportunities available to us today. What remains unanswered by this study is the connection between identifying assumptions and the transformation of assumptions. What is the connection? How does transformation actually occur personally and socially?

### **What Are Some of the Assumptions Influencing Western Life Today?**

The literature review assisted in the development of a beginning collection of assumptions that inform the Western mind. Transformation theory does not specifically link assumptions with the Western tradition. The question is raised, "What other ways are there for identifying assumptions and linking them with the broader arena of everyday life in the West?"

Some assumptions have been identified, many additions are called for. The review represents the assumptions of high culture in the Western world. It is missing the voices of women, slaves, minority groups, indigenous people, and people of colour. It is representative of the voice of the middle class white male who primarily recorded the history. The list is representative of the West, it would be enhanced by incorporating a complementary list of assumptions from the development of the Eastern mind. Eastern assumptions would provide balance and punctuate difference providing new meaning.

Refinement of concept and wording has yet to be done along with a greater synthesis of the material. Such a job calls for collaboration with an interdisciplinary team of people to add further diversity and depth.

The assumptions helped to provide insight into the experience of the graduate studies class in a similar manner to which the class experience helped to provide insight into the literature review and focus upon specific assumptions. These connections are explored in chapters three, four, and five.

### **The Qualitative Methodology**

The qualitative and exploratory methodology chosen for this research project was affirmed by the literature search. The search provided criteria and support for the choices made surrounding analysis and insight into the experience of the graduate studies class. As can be anticipated, these choices were influenced by and include aspects of Jungian theory, which was revealed as being an important theory by the search. These ideas are explored in detail in chapter three.

### **Transformation Theory Research**

A search for studies and research done in the area of transformation theory was formally done on ERIC, psyclit, and sociolit by university librarians. The search revealed only Mezirow's study of the women's re-entry program to community colleges. A further manual search for studies relating to the development of the Western mind and the identification of assumptions was done over the last ten years in the philosophy index. No related studies were found.

Mezirow discussed research done in the area of transformation theory in his latest book (1991b). All of the research, including Mezirow's on the women's re-entry program, focus on the transformation process. Assumptions are evidently revealed in the process but they are not specifically focused upon. They are discussed in relationship to the specific circumstances of the study and not specifically in relationship to Western thinking.

Mezirow discusses research associated with transformation theory in his consideration of distorted epistemic, psychological, and sociolinguistic assumptions and perspective transformation in "Transformative Dimensions of Adult Learning" (1990b). These discussions assume that a person has a grasp of current theories in the wider arena of the Western world. References are made to concepts such as decontextualization, decentering, various ideologies, the importance of understanding linguistics, and to theorists such as Greene, Freire, Khun. In order to begin to understand and locate the theorists and concepts it was necessary to turn to the development of the Western mind.

The search of the development of the Western mind for the ideas that shaped the mind began to reveal the assumptions "basic to" the

concepts and ideas presented in Mezirow's writing. It also placed Mezirow's progressive ideas within the context of the greater whole of Western thought.

**Assumptions: Postmodern Mind Continued**

1. The world is a unitary living organism.
2. Nature is a mystery, a revelation.
3. Perception and reason are recognized as being always informed by the imagination.
4. The original project of Romanticism-the reconciliation of subject and object, human and nature, spirit and matter, conscious and unconscious, intellect and soul-has reemerged.
5. There exists a plurality of perspectives through which the world can be interpreted.
6. Truth is something that is created, not proved or disapproved.
7. Truth is radically paradoxical.
8. The myth is a form of truth.
9. Both the lived world and much of human thought show meaningful echoes of mythical disclosure.
10. Rationality and myth can coexist.
11. Human knowledge is a constructed form of experience. It is a reflection of mind as well as nature.
12. Nature has a dual aspect at the subatomic level.
13. The more we emphasize one aspect of observation the more the other aspects become uncertain.
14. Every act of perception and cognition is contingent, mediated, situated, contextual, and theory soaked.

15. There is no such thing as pure reason.
16. There is no such thing as value-freedom.
17. Chance and necessity both play a part in the creation of reality.
18. Different spheres of knowledge guide human behaviour.
19. Each sphere of knowledge has a different form of rationality.
20. Meaning of common experience unfolds as people communicate with one another.
21. Knowledge of the world's underlying structure and meaning entails the exercise of a plurality of human and cognitive faculties, rational, empirical, intuitive, aesthetic, imaginative, and moral.
22. No system of thought is final.
23. The rational, aesthetic, and spiritual realms are part of an indivisible whole.
24. The world is always in a process of completing itself.
25. Personal and social unconscious forces influence human thinking and behaviour.
26. Experience is constantly enriched and always unfinished.
27. Subject and object are integral.
28. Autonomy and solidarity are of equal value.
29. Social systems are open systems and characterized by change disorder, instability, nonlinear relationships, and temporality.
30. Order can spontaneously arise from a state of disorder as a result of a process of self-organization.

source ( Capra, 1982; Habermas, 1984, 1989; Prigogine, 1980; Prigogine & Stengers, 1988; Tarnas, 1993)



### CHAPTER THREE: METHODOLOGY AND PROCEDURES

This chapter outlines the methodology and procedures used for the research project. The purpose of the chapter is also to make explicit the decisions, strategies, and assumptions used for data collection, deconstruction and reconstruction throughout the research project.

The interrelationships between transformation theory, the literature review and the decisions, strategies, and assumptions informing the study of the graduate studies class are emphasized throughout the chapter.

The interrelationships between the study decisions and actions and the assumptions underlying qualitative research and the criteria for establishing trustworthiness of the study are also disclosed.

The chapter opens discussing the rationale for using an exploratory, qualitative approach to the study and the trustworthiness of the project. The criteria for site selection are listed and described. Emergent features of the focus and study design are then linked with chapter two, the data collection, circumstances of the research project, the phenomena of the experience as the phenomena impact on decisions for further data collection and analysis. The methods used for data analysis and synthesis are also discussed throughout the "emergent" design discussion. These include the use of the pragmatic problem-solving model and Jungian theory. Limitations of the study are explored. The chapter ends with a restatement of the problem.

#### **Assumption: Introductory Remarks**

1. The process of knowledge should be explicitly declared as part of descriptions of natural phenomena and theories.

## **Methodology**

The purpose of the study is to explore for assumptions that influence the meaning of the experience of the graduate studies class. The enigma of the study initially was the inability to identify and articulate assumptions underlying experience. This enigma precluded the choice of a quantitative research paradigm which requires known variables and hypotheses be declared at the onset of the study. The enigma implied the need for exploration. Hence, an exploratory qualitative research paradigm was chosen.

### **The Qualitative Paradigm: The Search for Assumptions and Meaning**

Mezirow (1991b) defines meaning as "an interpretation, and to make meaning is to construe or interpret experience—in other words to give it coherence (p.4)." He further suggests that we make sense of our experiences "prelinguistically, through cues and symbolic models, and through language" (p. 4). Assumptions that we have assimilated over the years of our lives influence the way we construe meaning prelinguistically and linguistically.

Assumptions underlie the frame of reference that we use to make meaning of our experience or to "construct" our reality. "Meaning" is of essential concern to the qualitative approach. "Researchers who use this approach are interested in the ways different people make sense out of their lives ... They focus on questions such as: What assumptions do people make about their lives? What is taken for granted?" (Bogdan & Biklen, 1992, p. 32). Understanding meaning and the assumptions

informing meaning are at the heart of the qualitative paradigm and the study.

### **The Compatibility of the Qualitative Paradigm and This Study**

The graduate studies class is seen as a microcosm of the greater whole, rich in complexity. In its unique way it is understood to reflect the assumptions, differences, tensions, and opportunities characteristic of the Western world today.

Qualitative research assumptions and themes enhance the possibility of achieving an understanding of the meaning of the class experience in all its complexity. The research assumptions reflect assumptions of the late twentieth century in the West. Research assumptions, themes, and implications for the study will be discussed.

### **The Nature of Reality**

Reality in the qualitative paradigm is understood to be "multiple, constructed, and holistic" (Lincoln & Guba, 1985, p. 37). The whole of the experience is understood by the dynamic interplay between all of the parts and the whole. Experience is located in a social, historical, and temporal context.

"Subject and object are only one" (Schrödinger, 1989, p. 137). Subject and object are like the wave packets in quantum theory, at once a particle confined to a small volume and a wave form. As subjects we are at once ourselves and in relationship with others and our environment in the "intersubjective space" (Habermas, 1984, 1987). Interrelationships, interdependencies, and patterns work together to make up an indivisible

whole, a whole that is greater than the sum of its parts. The elements "interact by mutually causal and indeterminate processes" (Lincoln and Guba, 1985, p. 55).

Experience is viewed as an open system influenced by external factors. Change is recognized as being constant and moves in a spectrum between chaos and order (Patton, 1990, Prigogine, 1980).

**Implication for the researcher.** Such a view of reality insists that the researcher is part of the whole. "Knower and known are interactive, inseparable" (Lincoln & Guba, 1985, p. 37).

Reality was understood to be mutually constructed between the members of the class, the context, events, group and instructional processes as it naturally unfolded over the course of the experience. In consideration of this a decision was made to actively engage in the classroom experience of a graduate studies class for one semester as a "participant observer." The goal was to *understand* the complexity of the experience as it emerged. The stance taken was one of empathetic neutrality, not to prove, advocate, or advance something, but rather to understand it.

**The researcher and hermeneutics: The art of understanding.** Three concepts of understanding arising from philosophical hermeneutics informed the research project. The first was the concept of the hermeneutical circle as described by Gadamer (1992). Understanding in this sense occurs in a circular motion as attention is focused back and forth between the parts and the whole. The circle formed by this

movement between the part and the whole is always expanding as understanding is always increasing.

Secondly, within the context of the hermeneutical circle a "fusion of horizons" happens as the horizon of the researcher's understanding fuses with the horizons of the participants in the group. "The person with understanding does not know and judge as one who stands apart and unaffected; but rather, as one united by a specific bond with the other, he thinks with the other and undergoes the situation with him" (Bernstein, 1985, p. 147).

On the one hand this permits coming to agreement about the meaning of the intersubjective situation. On the other hand it can stimulate "group think" (Knoop & Cranton, 1990a, p. 4) where distorted meanings remain unchallenged by the researcher and the participants. These possibilities were consistently kept in mind throughout the research study.

The third concept that arises from the notion of the hermeneutical circle and the movement back and forth between the parts and the whole is viewing hermeneutics as an art. Gadamer (1992) writes, "Hermeneutics is an art and not a mechanical process. Thus it brings its work, understanding, to completion like a work of art" (p. 191).

An artist constantly moves back and forth between the part and the whole while creating music, writing, sculpturing, or painting. Thinking of hermeneutics as an art extends understanding to capture the "wholeness" of the experience, the rational, aesthetic, spiritual, conscious and unconscious realms, just as an artist does. Dewey furthers an understanding of the meaning of the wholeness of the experience in a comment on art as experience:

In art as an experience, actuality and possibility or ideality, the new and the old, objective material and personal response, the individual and the universal, surface and depth, sense and meaning, are integrated in an experience in which they are all transfigured from the significance that belongs to them when isolated in reflection. (Dewey, 1934, p. 297)

The idea of thinking of hermeneutics as an art and the experience of the graduate studies class as a "work of art" prompted me to consider the participant observation experience and part of the analysis in terms of literary and artistic criticism. This added an aesthetic and ultimately mythical realm to the already rational criticism. These approaches are discussed later in this chapter.

**Implication for the inquiry.** Understanding the "real world" situation that I was a participant observer in entailed studying the experience as it emerged, in an unobtrusive, non-manipulative, non-controlling way. It necessitated considering the experience within the context of Western society at the end of the twentieth century, a university setting in Southern Ontario, and a physical classroom over the course of only one fall semester.

Attention was paid to the other members of the class, the educator, the events of the course, and group and instructional processes. Moments of the experience were entered into and savoured and perceived as unique.

Participant perspectives were respected and sought out. Interest was taken in what people experienced, how they interpreted their

experiences, and how they structured their experiences. This involved receptively and yet actively observing the participants, engaging with them, reading their journals and papers, and interviewing them. It also involved making explicit my own frame of reference as it evolved over the course so I could better understand how my perspective biased, limited, or enhanced my understanding of others' perspectives and the whole of the experience.

In order to make explicit my own frame of reference and thinking, a reflexive journal was kept throughout the process and a weekend "Proff Intensive Journal Workshop" (Mezirow, 1990a) was attended and Proff's books read (Proff, 1980, 1983, 1992).

The reflexive journal included both personal and research-oriented reflections and decisions and attended to the "outer world" of my conscious experiences. The Proff workshop resulted in an exploration of my life history and the keeping of an ongoing, intensive journal. The Proff program encouraged an exploration of my "inner world" of unconscious experiences. Personal experiences and assumptions that influenced the research project revealed by these methods are discussed throughout the text.

**Implications for trustworthiness.** Inquiry into the real world from the personal perspective of the researcher raised the issue of trustworthiness of the inquiry. In conventional quantitative research terms questions are asked and answered about "internal validity," "external validity," "reliability," and "objectivity." In qualitative research similar questions are posed about "credibility," "transferability," "dependability," and "confirmability."

**Credibility: Prolonged engagement.** The credibility of the inquiry is about the accurate identification and description of the subject. Lincoln and Guba (1985) suggest that the credibility of the inquiry increases proportionately to the length of time spent in the field by the researcher. Hence, a decision was made to observe the graduate studies class for the entire length of the semester the course covered.

**Credibility: Triangulation.** "Triangulation is the act of bringing more than one source of data to bear on a single point" (Marshall & Rossman, 1989, p. 146). During the course of the research project, the participant observation data were compared with data from multiple and differing sources. They were compared with data in class members' journals, papers, educator comments on the researchers' observations, and with interview data collected from the educator and the students.

The findings were also compared with differing theories. The theories included critical, invitational education and counselling, collaborative education, adult education, administrative, scientific, philosophical, feminist, and Jungian theory. These theories both complimented and challenged the findings and are discussed in chapter four.

**Credibility: Peer debriefing.** It is suggested that peer debriefing increases credibility. A decision was made to regularly "debrief" with one of my colleagues in the Masters of education program. This opportunity proved to be invaluable. My colleague entered into the research



situation and provided a "disinterested" perspective that brought balance and objectivity to the situation.

This particular colleague has what Bolen (1985) calls an "Aphrodite consciousness," a consciousness that "facilitates change and growth" (p.228). A person who has an Aphrodite archetype has a "consciousness that is focused yet receptive; such a consciousness both takes in what is attended to, and is affected by it" (p. 226). This type of consciousness sparks creativity. Needless to say I would leave our meetings energized and with new ideas and new ways to look at and appreciate the research study. In retrospect I see the type of catharsis that such a debriefing session held as a very necessary and important part of the creative aspect of the research process.

**Credibility: Negative case analysis.** Kidder advocates that "negative case analysis" increases the credibility of qualitative research (Lincoln & Guba, 1985, p. 309). The object of negative case analysis is to continually revise the hypothesis at issue until it represents all the cases in question. This situation "eliminates all outliers and all exceptions by continually revising the hypothesis ... until the fit is perfect (p. 312)." Lincoln and Guba suggest that "an insistence upon zero exceptions is too rigid" and almost impossible to accomplish, and I agree with this (p. 312).

The idea of negative case analysis, however, appealed to me. Subsequently, I adapted the idea. Instead of looking for negative cases to continually revise hypotheses with, I looked for negative cases to generate and/or explain or split variables effecting an issue (Miles & Huberman, 1984). For example, anxiety related to the self-directed approach to learning was isolated as a variable influencing the group

process. At first the anxiety appeared to be related to the "newness" of the approach for those who had not experienced self-directed educational approaches. In analyzing negative cases, cases of class members who were familiar with the self-directed approach, I surprisingly discovered anxiety again, but anxiety which was rooted in a different source. It was related to the approach not being sufficiently self-directed.

**Credibility: Member checks.** Marshall and Rossman (1989) and Lincoln and Guba (1985) stress the importance of the inquiry being "credible to the constructors of the original multiple realities" (Lincoln & Guba, 1985, p. 296). Member checks were done routinely, formally and informally, throughout the process with the class members.

Thoughts and ideas about the data analysis and synthesis were regularly discussed with the educator of the class. These discussions provided a different perspective, new ideas, and confirmed final findings. Data collected in journal entries and during the interviews were clarified personally or over the phone with individual members.

The P.E.T. psychological type test and the archetypes determined for each individual were checked and affirmed by each of the class members. The overall findings of the research were shared and discussed with eleven class members one evening. These findings were confirmed by the members attending the event.

**Transferability.** The transferability or generalizability of qualitative research is viewed by "traditional canons as a weakness of the approach" (Marshall & Rossman, 1989, p. 146). The expectations of the traditional and qualitative approaches are different. The traditionalist expects to

make precise statistical statements of confidence that support or reject the possibility of generalizability. The qualitative researcher "can only set out working hypotheses together with a description of the time and context in which they were found to hold" (Lincoln & Guba, 1985, p. 316).

It is suggested that measures taken to ensure "credibility/internal validity" mitigate against the possibility of "clean generalizations" (Lincoln & Guba, 1985, p. 297). The measures to ensure credibility concentrate on the sample chosen to study, not the general population.

The researcher only knows the "sending context" not the "receiving context" transferred or generalized to. Subsequently, the congruence between a sending and receiving context can only be ascertained by the receiver who is dependent on an adequate description of the sending context to use as a point of comparison. The congruence between the contexts is referred to as "fittingness" (Lincoln & Guba, 1985, p. 124). Since "fittingness is dependent upon "thick description" as introduced by Geertz (p. 125), (Hammersley & Atkinson, 1989, p. 213) an attempt has been made in chapters three and four to provide sufficient description of this study to allow comparison between two contexts.

It is suggested that triangulation also strengthens the possibility of transferability (Marshall & Rossman, 1989, p. 146).

**Dependability.** The qualitative paradigm assumes that the social world is always changing. Considering this assumption it is important that the investigator "account for the changing conditions in the phenomena chosen for study as well as the changes in the design created by increasingly refined understanding of the setting" (Marshall & Rossman, 1989, p. 147). These changes are accounted for in chapter three under

the heading "The Unfolding of the Focus and Design." The changes in focus and design are supported in the discussion in chapter four. The audit trail and the reflexive journal kept throughout the process assisted in identifying the changing circumstances of the design.

**Confirmability.** Confirmability is comparable to objectivity in the traditional research paradigm. Objectivity in the extreme sense assumes distance between the observer and the observed, a subject-object dualism and inquiry that is value-free. Confirmability of the inquiry<sup>28</sup> assumes that the observer and the observed are interactive and inseparable, that the subject and the object are integral, and that inquiry is value bound. Hence, objectivity in the qualitative research sense is that of "intersubjective agreement" (Lincoln & Guba, 1985, p. 300).

Confirmability is established by triangulation, peer debriefing, negative case analysis, and member checks (Marshall & Rossman, 1989; Lincoln & Guba, 1985). Lincoln and Guba further suggest that confirmability of the inquiry is established by keeping a reflexive journal and having the inquiry audited by an external auditor. The external auditor "examines the product-the data, findings, interpretations, and recommendations-and attests that it is supported by the data and is internally coherent so that the "bottom line" may be accepted" (Lincoln & Guba, 1985, p. 318). This research project attended to all of the criteria for confirmability with the exception of having an external audit completed.

For an overview of the audit trail type file classification and audit trail classification of trustworthiness kept throughout the process see Appendix E and F. The audit trail classifications are adapted from the work of Halpern in 1983 and presented by Lincoln and Guba (1985).

**Assumptions: Methodology**

1. Assumptions influence the way we construe meaning prelinguistically and linguistically.
2. Understanding meaning is at the heart of the qualitative research paradigm.
3. Realities are understood to be multiple, constructed and holistic.
4. Experience is located in a social, historical and temporal context.
5. Interrelationships, interdependencies, and patterns work together to make up an indivisible whole.
6. The whole is greater than the sum of its parts.
7. Elements of the whole interact by mutually causal and indeterminate processes.
8. Knower and known are interactive and inseparable.
9. Understanding is created by moving attention back and forth between the parts and the whole.
10. Hermeneutics is an art.
11. Imagination and will are valued equally as intellect and will.
12. Knowledge of the world's underlying structure and meaning entails the exercise of a plurality of human and cognitive faculties, rational, empirical, intuitive, aesthetic, imaginative, conscious, unconscious, and moral.
13. The rational, aesthetic, and spiritual realms are part of an indivisible whole.
14. Subject and object are integral.

15. Inquiry is value bound.

source (Bogdan & Bilken, 1992; Gadamer, 1992; Habermas, 1984, 1987; Lincoln & Guba, 1985; Marshall & Rossman, 1989; Patton, 1990; Chapter, 2)

## **Sample Selection**

### **Type of Sample**

Chapter one and the preceding discussion has presupposed that this study is a "case study" as defined by Merriam, (1988), "a single-site" study as defined by Miles and Huberman (1984), and a "purposeful sample" as defined by Patton, (1990). Aspects of all three definitions enhance an understanding of the choice of sample.

Merriam (1988) defines a qualitative case study as "an intensive, holistic description and analysis of a single instance, phenomenon, or social unit" (p. 21). Miles and Huberman (1984) prefer the term "single-site study" as the term implies the all inclusiveness of the study of "cases" and the "context" in which the study occurs (p. 28). Purposeful sampling "selects information-rich cases for in-depth study" (Paton, 1990, p. 182). This study is thought of in terms of all three definitions. It will be referred to as a single-site study.

The single-site research design reflected and illuminated the methodological assumptions and the associated concepts of the qualitative paradigm listed and discussed above. Each of the authors, Patton, Merriam, and Miles and Huberman, was sensitive to the assumptions and elaborated upon them in his/her texts thus facilitating the choice of research design.

### **Criteria for the Single-Site Selection**

The criteria for the single-site selection derived from the overall purpose of the study, the theoretical framework of the study, and a recommendation from the qualitative research literature. Each of these will be discussed in succession.

The purpose of the study, to examine the experience of a graduate studies class, determined the broad criteria of the sample selection. The first two criteria locate the context of the study, a graduate studies class in a university setting.

The context is significant for this study and future studies arising from this exploratory study. The purpose of this study is to begin to identify assumptions underlying the meaning of the educational experience of the graduate studies class. In future, the interest is in furthering an understanding of the assumptions underlying educational experiences and their consequences in the workplace, home and community.

Mezirow (1991b) proposes that the educator "help adult learners become more imaginative, intuitive, and critically reflective of assumptions; become more rational through effective participation in critical discourse; and to acquire meaning perspectives that are more inclusive, integrative, discriminating, and open to alternative points of view" (p. 224). These propositions focus on the autonomy, growth and development of the learner. They also presuppose optimal conditions for participation in critical discourse, "freedom, democracy, equality, justice, and social cooperation" emphasizing the importance of solidarity in groups (p. 226). I was interested in finding a sample in which the educator philosophically agreed with these propositions and attempted to practice them. With the assistance of my advisor such an educator was identified.

The educator agreed to my observation of her class, facilitated the research, and entered into the research process with me.

A traditional classroom would punctuate difference, create strangeness, and be a point of comparison to transformation theory. The possibility of studying a traditional classroom in addition to a site where the instructional methodology included self-directed learning and group discussion was considered. However, since this was my first qualitative research study a decision was made to follow the advice given by Bogdan and Biklin (1992) and start with and concentrate upon a single-site study. The instructional methodology of the site chosen included the self-directed learning approach and group discussion.

It was of particular importance that the educator actively create a community of discourse in which freedom, democracy, equality, justice, and social cooperation were possible (Mezirow, 1991b). Such a classroom setting would not only reflect transformation theory but also the past and current dialogue in philosophy and education advancing democracy and communities of discourse as advocated by Bernstein (1985), Dewey (1916, 1938), Habermas (1984, 1989), Novak (1990), Rorty (1982), (see appendix C).

The following assumptions derived from chapter two underlie the criteria for choosing of the study sample. The assumptions underlie Mezirow's central tenets of adult education and instructional methods that include self-directed learning principles and the facilitation of group discussion.



### **Assumptions: Single-Site Selection**

1. The human being's power of self-expression and self-creation is recognized.
2. Human beings are recognized as having the freedom to think independently and the ability to self-transform.
3. Human beings are agents always and necessarily engaged in reality, thereby at once transforming it while being transformed.
4. \*People participate in the construction of reality.
5. \*Commonly accepted categories of understanding are socially constructed, not derived from observation.
6. There exists a plurality of perspectives through which the world can be interpreted.
7. All truths and assumptions must be continually subjected to direct testing.
8. Meaning of common experience unfolds as people communicate with one another.
9. Autonomy and solidarity are of equal value.
10. Subject and object are integral

source (Chapter 2) and \* (Chapter 1)

### **The Unfolding of the Focus and Design**

The proceedings of the research project (Appendix G) will be discussed chronologically starting in the summer of 1992 when the project was initiated and up to the present time, the writing of the report. Decisions regarding data collection, deconstruction, analysis, reconstruction, and synthesis are discussed within the context of this

section. The emergent group phenomenon is identified in this section as it impacts on the decisions made about the proceedings.

### **The Summer of 1992**

The summer was spent reading in preparation for the proposal and thesis. The readings both generated and affirmed the notion that there was a need to understand the development of the Western mind starting probably with the Greeks, if not before. The readings also confirmed the fact that I wished to understand the experience of the graduate studies class in terms of underlying assumptions that were suspected to reflect assumptions underlying the Western mind. The two goals seemed complementary.

However, there was lack of clarity about Mezirow's theory, about assumptions and a need to explore the development of the Western mind further to understand the connections between Western thought, the theory, and the graduate class experience.

### **The Fall of 1992: The Experience**

The lack of understanding about transformation theory at the end of the summer precluded writing a proposal. A decision was made after consultation with my advisor to begin the participant observation experience as it was thought that the experience might add clarity to my understanding and permit the writing of a proposal.

### **Organizing and Choosing the Study Sample**

At the onset of the fall a meeting was organized with the educator who had been identified as being appropriate according to the criteria

put forth for the single-site study. At the end of a short interview we were both comfortable with the idea of proceeding with the observation of the class.

Three features facilitated the decision making about the site. First, the educator came well recommended by the advisor. The educator had been a former student at the university in the masters of education program. She had been a part of the program that this study was based upon so was familiar with the tenets and goals of the program. In addition the educator had just completed a Ph.D. program in higher education, was in the process of completing a dissertation, and had current knowledge in the area of higher education that would add to the content of the course being observed.

Secondly, the educator's personal research, development, and writing included work in the areas of self-directed learning (Herbeson, 1992) and democratic education (Winchester, Jones, Herbeson, Sadlak, 1992).

Finally, the course being facilitated was "The Introduction to Adult Education." This course is designed to model as well as facilitate learning about the most progressive ideas in the field of adult education. Thus, the inclusion of the self-directed learning approach and group discussion was presupposed. It appeared that the assumptions listed for the single-site study had the potential of being realized.

The chairperson of the graduate studies department gave permission to start the thesis program while completing the proposal course. This entailed, from an ethical point of view, discussing with the members of the class that the class experience was being observed to assist with the writing of the proposal. There was no objection put forth

about doing this by any class member. At the onset of the observation period there was uncertainty as to how the observation would progress so judgment and thus discussion about the possibility of also using the data collected for the thesis was reserved until later.

### **The Participant Observation Experience**

This section presents how the methodology discussion and assumptions discussed at the beginning of the chapter, qualitative procedures, and the literature review were integrated and put into practice during the participant observation experience. The purpose, goal, and focus of the experience is reviewed, followed by a discussion of the experience as a work of art, and concludes with an explanation of how the data were initially collected and analyzed.

**The purpose, goal, and focus of the study.** The purpose of the study was to explore for assumptions that influence the meaning of the experience of the graduate studies class. The goal was to understand the experience in all its complexity as it emerged. However, "one does not- nor can tell" the whole story, "the writer always tells an incomplete story" (Eisner, 1991, p. 90). So it is necessary that I make explicit what it was I selected to see.

Chapter two and the criteria for the selection of the single-site study provide the initial focus of the participant observation experience. The two leitmotifs that were recognized as being highlighted and discussed by present-day philosophers, scientists, and educators were the "self," that leads to a creative self, and "discourse," that leads to solidarity.

The view of the self is changing today. The alienated, isolated, fragmented self resulting from the mechanistic world view is looking for consolation. There is increasingly more literature emerging on the creative, narrative self. There is recognition of the importance of our own narratives, and of myth, imagination, and meaning.

The chaos of our current generation has stimulated an appeal for unity, for consensus, for solidarity. Philosophers like Habermas, Benhabib, and Mezirow are responding to this appeal and focusing on communication, discourse, and discourse ethics and suggesting ideals to follow to bring about solidarity. Others such as Foucault and Derrida deconstruct our situation to understand problems such as power and domination and how they prevent solidarity. This study focused on discourse.

This study sought to focus on the self, the individual class member's narrative. It sought also to focus on the discourse in the large group setting. It especially sought to understand relationships between individuals, and individuals and discourse. Within this context assumptions underlying the experience were identified.

**The experience: A work of art.** "Seeing, rather than mere looking, requires an enlightened eye" Eliot Eisner (1991, p.1). Naturalistic inquirers, connoisseurs, critics, try to say something meaningful about the complexities of works of art-be it a classroom, a novel, a painting. It was to the arts that I turned to explore for a deeper understanding of the role of the participant observer, to "see" in a meaningful knowing way.

Eisner suggests that our seeing and knowing can be enhanced by considering the art of criticism and connoisseurship. "Connoisseurship is

the art of appreciation" (p. 64). The connoisseur experiences the art form. He/she has an awareness of the qualities of the art form and can differentiate between the particular, and the particular as a member of a larger set. The educational connoisseur has an appreciation of the aims and goals of education, instructional methods, the curriculum, and teaching/learning and can distinguish between degrees of excellence.

The art of criticism "enables others to see the qualities that a work of art possesses" (Eisner, 1991, p. 6). The critic reconstructs or "transforms the qualities of the painting ... classroom ... or act of teaching and learning into a public form that illuminates, interprets, and appraises the qualities that have been experienced" (Eisner, 1991, p. 86). The critic specifically differentiates between the description, interpretation, and explanation of the experience (Miles & Huberman, 1985).

The unfolding narrative of the study of the graduate studies class was viewed from the perspective of a connoisseur and a critic, albeit that of an amateur educational connoisseur and critic. The experience was understood in a "large meaning of experience" including sensory awareness as well as all phases of feeling, thinking, judging, willing," imagining, intuiting consciously and unconsciously (Leshan and Margenau, 1982, p. 44). The experience was appreciated as being multiple, constructed, and holistic. The participants were valued and respected as individuals and colleagues. An attempt was made to see and understand the integration of the rational, aesthetic and spiritual dimensions of the experience. These ideas formed part of the backdrop of the participant observation experience.

**The initial data collection.** The data collection during the participant observation experience focused on the individuals in the group and the group process. The broad framework for the data sources included the context, the events, and the people (see Appendix E).

Data about the context collected during this period of time included field notes about the university setting and the physical layout of the classroom. Information collected about the university setting included obtaining the mission statements of the university and the graduate studies in education program. The university calendar and registration guide that included descriptions of the course "the Introduction to Adult Education" were kept. Facts about the university campus and its relationship to the community were observed and recorded.

The parameter "events" included information about the course. The course outline and content handed out the first class was kept for analysis, as well as a revision of the outline. On a weekly basis the preparatory readings for the class were filed, read, and commented upon. The weekly agendas and class handouts were kept filed and commented upon.

In order to collect information about the people, a variety of sources were attended to. A pictogram of the class seating arrangement was drawn indicating who sat where each night. Notes were kept about the proceedings each evening, including who participated in the group discussion, the topic of the conversation, the nature of the discourse. One fifteen-minute sociogram was kept the fourth night during the large group discussion on the preparatory readings for that evening. Formative evaluations done the sixth evening and the educator's summary of the evaluations were given to me by the educator.

**Initial data analysis.** Field notes were formally written up after each class. These notes were started the evening of the course and finished the following morning. The field notes were organized in the following manner:

Comments were made initially about every member present at the class. These included comments about effect, and participation. Actual comments made in the course of the large group activities and information that the person shared about himself/herself with the group, professionally and personally, were recorded.

Relationships amongst group members were then noted and commented upon; these included relationships from the past that were reestablished as a result of the class, new relationships that grew during the course of the program. Relationships between the educator and the other class members were also described. Finally, relationships between the class members and me were described. An attempt initially was made to simply describe the relationships rather than to interpret the meaning of the relationships. As the course progressed and themes and patterns became apparent, relationships were commented upon with respect to the group process.

The instructional methods were briefly described and their reception by the group members. Within this context, the quality and form of the student engagement from the onset of the evening to the end was summarized. Also within this context the quality of the content in terms of its relationship with the instructional process was commented upon. The atmosphere was discussed. The topic of artistry was attended to and commented upon from the perspective of the educator and other group members.



Underlying assumptions were searched for from all the data that were collected and recorded on a weekly basis. Many of the original "assumptions" were "descriptions" and not assumptions but did provide enough information that assumptions could be drawn from them at a later date.

The write-up of the field notes was given to the educator on a weekly basis for comment. The weekly sessions were also discussed with the educator generally on a weekly basis several days after the event. The discussions centered around clarifying my observations of the events as a form of triangulation. Discussions interpreting the data did not occur until after the program was over.

**The group phenomenon.** Within a three-week period of time the participatory discussions in the large group sessions of the class moved from being facilitated by the educator with everyone participating to being formally lead by a leader who emerged from and was supported by the group. Within a five-week period there was an established group of discussants and an established group of silent members in the large group discussions.

The focus of the observations at this point narrowed to observing participation in the large group. The actual question for the study emerged. The question statement became, "What are some of the assumptions and their consequences underlying the Western mind that facilitate and impede participation in the large group discussion in the graduate studies class?"

**The thesis.** By mid November it was apparent that the participant observation experience had generated enough data and ideas to be used for the writing of a thesis. Discussions with both the advisor and the educator of the class confirmed the idea.

The educator provided space on the agenda of November 23, 1992 to discuss the possibilities of using the data collected for a thesis. The class members response to the request was supportive. All agreed to the use of the material for the purpose of writing a thesis.

A request was also made to review journals and papers of class members, and to interview members of the class in April once the initial data had been analyzed. Once again the response was supportive. The class members on their own volition offered their names, addresses, and phone numbers so they could be contacted for formal consent, the retrieval of journals, and papers, and the arrangement of interviews, once the proposal was accepted by the ethics committee.

All of the class members (n=16) followed through with their formal consent for the use of the data collected. Further, nine people who kept journals throughout the course provided their journals for review, six different people provided their papers, and nine allotted time from their busy schedules to be interviewed. Eleven class members met to discuss the study results in December, 1993. Those who could not meet that evening spent time over the phone discussing and confirming findings.

### **The Final Data Collection**

Journals and papers were collected by the end of March, 1993 and the interviews completed by April 1993. The initial data analysis was completed after the course was over in December, 1993.

This analysis generated questions for the interviews. In searching to identify assumptions underlying the facilitation of and impedance or resistance to participatory discussion in the large group setting questions were raised about gender, age, experience with participatory discussions.

The question of silence in the group and the metaphor of "voice" prompted a literature search which led to feminist literature on psychological theory and women's development (Gilligan, 1982; Belenky, Clinchy, Goldberger, Tarule, 1986; Jordan, Kaplan, Miller, Stiver, Surrey, 1991). The literature, though primarily focused upon women, was found to be equally as applicable to men; it spoke to the issues of silence and voice directly as no other identified sources did. Subsequently, a decision was made to use it as a theoretical basis for examining the metaphor of voice, and to guide the interview.

Gilligan, Belenky, et al., (1986) interviewed women to better understand women's ways of knowing and the issue of silence in women. It was Belenky, et al.'s interview schedule (1986) that was adapted for the interviews done with colleagues (see Appendix H) about the experience of the class.

The interviewing style was unstructured. Although an interview schedule was developed to guide thinking and to guide interviews where the interviewee preferred structure, it was for the most part in the background of the interview. All of the interviews began with the question "What stands out for you as being important about your experience in the 5P23 class?" Apart from the initial question the interviews were led by the interviewee's thoughts and comments. Apart from the final questions on a moral dilemma most of the other questions arose naturally during the course of the interview.

The colleagues chose the location of the interview, a place that would be convenient for them and least interfering in their schedules. The places ranged from colleagues homes, to classrooms, a library, a faculty club, each location added a dimension and depth to the interview and to my understanding of the "other."

### **The Final Data Analysis, Reconstruction and Synthesis**

Each of the major elements, context, events, and people, was analyzed separately. Each source within the context of the major element was also analyzed separately (these are designated in chapter four).

The pragmatic problem-solving model was chosen as the framework within which to analyze, synthesize, and integrate the data collected for the study, (Knoop, 1990a) (see Appendix I). The pragmatic problem-solving model is created "to guide thinking" (p. 15). The model assists to "organize thoughts in a sequential, cohesive, and logical manner" at the same time that it allows for "intuitive leaps and gut feelings." The model permits being "able to work on each of the steps at any time" thus allowing a person to "digress, roam and explore all facets of the problem process at any time" (Knoop, 1990a, p, 16).

Step One and Two of the model ask the questions, "What is happening?" and "What is the problem?" These questions are the "deconstructive phase" of the problem-solving process. Major elements and forces underlying the problem are identified in Step One. Step Two entails the identification of the actual problem "the heart, and often the most difficult part, of the problem-solving process" (Knoop, 1990a, p.19). During this step signs and symptoms of the problem are differentiated from

the causes of the problem and the actual problem statement. Within the context of this study the causes of the assets and/or problems are stated as underlying "assumptions."

Steps Three, Four, and Five are the "reconstructive phase" of the problem-solving process and answer the questions, "What can we do about it (i.e., the problem)?" "What should we do about it?" and "How should we do it?" During these steps possible approaches to solving the problem are generated, evaluated, and decided upon.

The application of different theories assisted with both the deconstructive and reconstructive phases of the problem-solving process. The pragmatic problem-solving model also provided the outline for reporting the results of the exploration discussed in chapter four.

**Jungian psychology.** The Jungian psychology of psychological type and archetype was used to provide insight into the problem of participation in the large group discussions. This was based on the work of Jung (Campbell, 1987; Nagy, 1991; Storr, 1983, 1990, 1991), Bolen, a Jungian analyst, psychiatrist, and clinical professor at the University of California, San Francisco (1984, 1989), and Knoop (1990a and b), Knoop and Cranton (1990 a, b , c, 1993). The details of Jungian psychological type and archetype are presented in Appendices J and K.

The members of the graduate studies class completed a Jungian psychological type test, the P.E.T. Psychological Type Test, (1990a) for the study. The test results were linked with archetypes described by Bolen, and the profiles that were developed for each member of the class. The profiles were developed for each member by considering the participant observation weekly write-ups, journals, papers and interviews in terms of

comments and thoughts members made about context, course content, instructional processes, themselves, and their relationships.

The class members confirmed their psychological types and their archetypes as determined by the researcher as a result of the processes described. This confirmation permitted considering the class experience in terms of psychological types and archetypes and is consequently referred to in the discussion in chapter four.

Jungian theory added an aesthetic, mythical dimension to the already rational process of analysis. It also appealed to the unconscious forces that play a role in all of our experiences. The idea of using the mythical/archetypal dimension followed Northrop Frye (1990a, 1990b, 1991) and his use of the mythical dimension in literary criticism. It followed Gareth Morgan (1986) and his application of Jungian shadow and archetype in the analysis of organizations. And finally, it more intensively followed Bolen's work with her application of myths to the understanding of the lives and experiences of her "patients, friends, and colleagues" (1994, p. xiii).

In addition to the archetypes being used as an insight tool, the method preserved anonymity of the group members and the trust developed between the class members and me. Insight into type and archetype cordially summoned class members to realize their potential (Purkey & Novak, 1984; Purkey & Schmidt, 1989).

### **Limitations**

The limitations of the research will be discussed in terms of the literature review, the class observed, the nature of the research, and the researcher.

### **The Literature Review**

The assumptions gleaned from the literature review are a first draft of some of the assumptions underlying the Western mind. These assumptions, as stated at the end of chapter two, require refinement and development. They have, however, been used to identify assumptions underlying qualitative research in order to more clearly direct the choice of research methods and procedures. They are used in chapter four to reveal root causes of assets and problems arising from the graduate studies class experience. They are specifically being used to determine their utility. They are, however, used with caution and recognized as needing development.

### **The Class Observed**

The study is limited to the observation of one class. The recommendations as a result of the review are designed for the specific class observed. The uniqueness of the group precludes generalizing from the results. A reader may identify with some of the descriptions and may then chose to apply information if seen fit. This application cannot be determined by the researcher of this project.

### **The Nature of the Research**

The research is an exploratory qualitative research project. The exploratory nature of the project precludes determining any hypotheses. Suggestions can only be made about possibilities for further research, applications to practice, and theory.

### **The Researcher**

The limitation of lack of experience of the researcher cannot be over emphasized. This project represents explorations within the context of areas that are all new to the researcher, qualitative research, transformation theory, the development of the Western mind, the writing of assumptions, Jungian theory of archetypes, adult education, group process, and educational research.

### **Restatement of the Problem Statement**

This research project entails examining a graduate studies class in its natural setting, in all its complexity. Transformation theory frames the study to search for influencing Western assumptions. The question emerging from the class experience became "What are some of the assumptions and some of the consequences of the assumptions underlying the Western mind that facilitate and impeded participation in the large group discussion in the graduate studies class?"



## **CHAPTER FOUR: RESULTS AND DISCUSSION**

This chapter describes and discusses the findings of the research. It begins with a description of the case study and a reiteration of the question.

The complexity of the issue of "group participation" is likened to a spider sitting in the middle of its web, able to feel and respond to any tug in any part of the complicated structure. The major elements, context, events, and people in the complex web affecting participation are then described, analyzed and discussed individually.

The elements are presented in the following manner: the sources examined within the context of the element are designated; the signs and symptoms of the assets and problems of the element are discussed; the associated assumptions are listed; the element is discussed in terms of the assumptions, the consequences of the assumptions, and possible alternative approaches, theoretical and creative. The deliberations about the major elements are then discussed in terms of their interaction together as part of the whole web of issues influencing participation and the value of identifying assumptions in the conclusion of the chapter.

### **The Case Study**

#### **The Context**

The graduate studies course, of the class observed, was offered by Brock University in the Niagara region of southern Ontario. The university was within easy commuting distance of several major cities in southern Ontario and had satellite campuses throughout the region making

graduate studies possible for adults working on a full-time basis. The observed course was held at McMaster University in Southern Ontario, one of the satellite campuses, approximately 60 kilometers from the main campus.

### **The Course**

The course was offered by the faculty of education in preparation for the master of education degree. The course is described in the Registration Guide (1992-93) as follows: **Introduction to adult education;** The theoretical foundations of adult education, including theories of learning and characteristics of the adult learner. Participants will design a segment of adult instruction based on theoretical foundations.

The actual course presented the content as described in the guide. A greater selection of alternative assignments was suggested for the participants including, "a task of your choice," honoring the tenets of self-directed learning in adult education (see Appendix L).

### **The Class**

The class was composed of 18 members. This included the educator, 16 students registered in the course, and the participant observer who also was a student in the program.

The educator, as described in chapter three, was a woman whose area of expertise was in the field of higher education with special interests in the concepts of self-directed learning and democratic education. The educator's first degree and initial experience in the workplace was in social work.

Twelve of the 17 students taking the course, including the participant observer, were women, five were men. Students ranged in age from approximately 25 to 45 years. Four of the students were full-time students and 13 part-time. Fourteen of the students had previously had experience with self-directed learning and participative discussion groups in education and three had come from a traditional educational background that did not include these concepts (see Appendix M).

The students professional backgrounds and interests were varied. These included public school teaching, nursing, occupational therapy and administration (see Appendix N).

### **The Proceedings**

The class was a Monday evening class held from six to nine o'clock. The first evening everyone with the exception of one person arrived about 10 to 15 minutes early. The atmosphere was one of anticipation and participation. Comments were made about being "glad to be back at school." Everyone, with the exception of three people, recognized someone that they knew in the class adding a note of pleasurable socializing.

The classroom was set up in boardroom fashion with everyone sitting around a rectangular table. The educator warmly welcomed the group and set everyone at ease. The educator initiated and facilitated large group discussions in which everyone participated, and small group activities. Some members appeared comfortable with the large group discussions, others were quieter and sat more aloof, yet still contributed something to the conversation.

The course outline provided on the first evening emphasized the importance of group participation. Under the heading "student responsibilities for each class " were included the remarks, "There will be in-class exercises that will require the cooperation and participation of all," and "Participation is an important component of adult education. It is strongly suggested that students attend class in order to obtain the maximum benefit from this learning experience" (Appendix L).

During the course of the evenings the facilitator varied her position around the table in an effort to converse with different groups of students and also to promote the idea of round table discussion. Some of the other members varied their positions also, others chose to sit in the same location if at all possible (see Appendix O).

The second night of the course began and ended with the same sense of cooperation and collaboration as the first evening did. By the third evening a "leader" apart from the educator emerged from the group. Apart from the sixth evening of the course the leader sat at the "head of the table" in a chair that was always left available for him. From the third evening on the classroom had the aura of a traditional classroom.

On the ninth night, a second leader (also a man) emerged from the group and sat in the chair of the original leader. When the original leader arrived, he did not appear to be the least concerned about his usual chair being taken, chose a chair at the side of the table and entered into the discussion as "one of the group."

The overall participation in the large group discussions diminished from the third night on and an atmosphere of complacency existed until the sixth night. By the fifth night there was an established group of

participants in the large group discussions and a silent group (see Appendix P).

The topic of discussion in the large group discussions at the onset of the evening was the preparatory readings for that evening (see Appendix Q). Members of the group generally raised queries they had about the readings during the sessions. The discussions lasted approximately 20 minutes to half an hour.

Apart from the first two evenings, the questions were directed to the educator. The emergent leader initiated, paced, and terminated<sup>2</sup> discussions. A sociogram was done for a 15-minute period the fourth night. At this time there were 38 exchanges; 17 were directed to the educator, who "answered" four questions and deflected 10 back to the group; six were directed to the group by other members and not responded to; one woman addressed a question to another member of the group who did not respond. Eight learners participated and six were silent; three were absent that evening.

During these weeks the small group activities continued with the same enthusiasm as in the original class. The small group activities were task-oriented activities intended to enhance an understanding of the topic under discussion that evening (see Appendix R). The composition of the small groups varied. People particularly enjoyed the individual activities.

Weeks 10 and 11 were student presentations. Task-oriented, small group activities initiated during presentations were entered with enthusiasm; group discussion apart from one session was otherwise minimal during the presentations. On week 12 the course was evaluated

and the group socialized. Socializing before class and during breaks was always lively and congenial.

Two central observations arose from the participatory observations. Large group discussions about the readings, the topic for the evening, were not democratic and participatory; a small group of people tended to dominate the discussion. Secondly, the discussions in the large group sessions were composed of independent thoughts or questions raised by members. These were not necessarily connected. The discussions were not exploratory or pursued to any depth. These observations were reflected in the formative evaluations of the course and confirmed by the nine people interviewed about the course. These observations became the basis of the question posed for the study.

### **The Question**

What are some of the assumptions and some of the consequences of the assumptions underlying the Western mind that facilitate and impede participation in the large group discussion in the graduate studies class?

### **The Spider and Web Analogy**

Martha Nussbaum (1986), a philosopher, suggests that, We reflect on an incident not by subsuming it under a general rule, not by assimilating its features to the terms of an elegant scientific procedure, but by burrowing down into the depths of the particular, finding images and connections that will permit us to see it more truly, describe it more richly, by combining this burrowing with a horizontal drawing of connections, so that every horizontal link

contributes to the depth of our view of the particular, and every new depth creates new horizontal links. (p. 69)

She likens the image of learning to "Heraclitus's image of *psyche* a spider sitting in the middle of its web, able to feel and respond to any tug in any part of the complicated structure (p. 69)." Nussbaum suggests that this type of image "discourages the search for the simple and, above all for the reductive." It emphasizes that we cannot exhaust learning about the particular, "the particular remains there, inexhausted the final arbiter of the correctness of our vision" (p.69) (Lyons, 1990, p. 159).

Each of the particulars of the problem of participation, context, events, and people and their sources are considered part of the web that pulls and tugs to which the spider responds. No part can be exhausted, all assumptions are not identified, nor are all the consequences of the assumptions identified explored. The focus on assumptions limited the observation of other aspects of the experience, or as the uncertainty principle indicates made the other aspects become uncertain.

An attempt is made throughout chapter four to "burrow down in to the depths" of some of the particulars and understand them in terms of their assumptions, consequences, and relationships with participation and within the context of the broader picture, the Western mind.

#### **Assumptions: Introduction Chapter 4**

1. There exists a plurality of perspectives through which the world can be interpreted.
2. The property of the parts can only be understood from the dynamics of whole. Ultimately there are not parts at all. What we

call a part is merely a pattern in an inseparable web of relationships.

3. Subject and object are integral.
4. The mind best manages problem solving by isolating and examining small components of the problem one at a time.
5. The components of problems are complex and interrelated.

source: (Chapters 2 and 3; Knoop & Cranton, 1990a; Nussbaum, 1986; Schrödinger, 1989)

### **The Major Element: Context**

This major element is discussed in terms of further elements the natural setting, mission statements, and the classroom. The major sources of information about the elements are identified, the signs and symptoms of the assets and/or problems are put forward, and the assumptions listed. An overall discussion occurs at the end interconnecting the different findings from the natural setting, mission statements and classroom.

### **The Natural Setting**

The natural setting was considered in terms of the people, the landscape, and the buildings. Two themes characterized the natural setting. The one theme, "community," and the second theme, "continuity" both created a sense of being part of a greater whole. These two themes guided the delineation of the assets and problems related to the natural setting.



### **Assets: Signs and Symptoms**

Brock University is located on the rim of the Niagara escarpment, at St. Catharines, Ontario. It was founded a quarter of a century ago "as a direct result of local and provincial initiatives," and contributes to the "intellectual, cultural, social and physical life of the community" (see Appendix S).

The campus is set at the edge of the "most inviting woods and countryside" and includes a part of the "scenic Bruce Trail" (Graduate Calendar 1993-94, p. 7). Walkways curve in and out of lush groves, glens, and around large modern buildings. The academic world and the world of nature are at one.

Brock Centre for the Arts coordinates performances for four performing arts theatres on campus that are offered to the community at large. Almost daily, school buses bring enthusiastic children to dramatic events. Retired citizens are seen hiking to and from the swimming pool and gyms past toddlers playing in the day school areas. Local and international students mix and mingle on campus and in classes. A community spirit is pervasive. One has a large sense of being part of a greater whole.

The satellite university campus, where the graduate studies course was held, although very different, also offered a sense of oneness with nature. The university being a much older university provided a sense of continuity with the past, old ivy covered buildings with a grand sense of history stood nestled in amongst wooded areas and large buildings of modern architecture. Tree lined walkways wound their paths about the campus and along wooded ravines. Each evening on the way to class we walked by a statue entitled "Man Releasing Eagles" by George

Wallace, commemorating a university founder, representing and reminding us of the threefold purpose of the university (teaching, scholarship, and community service), and enhancing a sense of continuity and community.

### **Problems: Signs and Symptoms**

The experience of the home university campus was limited to those students in the class who were full-time. The part-time students often chose courses that were convenient to their homes and workplaces and did not have the opportunity to experience the rich intellectual, cultural, and natural setting of the home university. This experience of being a part of a "community" added depth and intensity to the overall experience of being a graduate student and was primarily experienced by four students. All of the part-time students would like to have had the opportunity and privilege of studying on a full-time basis and of entering into the fullness of the experience.

### **Assumptions: Natural Setting**

1. The world is a unitary living organism.
2. Human knowledge is a constructed form of experience. It is a reflection of mind as well as nature.
3. Meaning of common experience unfolds as people communicate with one another.
4. Knowledge of the world's underlying structure and meaning entails the exercise of a plurality of human and cognitive faculties, rational, empirical, intuitive, aesthetic, imaginative, and moral.

5. The rational, aesthetic, and spiritual realms are part of an indivisible whole.
6. Human beings are agents always and necessarily engaged in reality, thereby at once transforming it while being transformed.
7. Human beings live in a universe that is utterly open.
8. Subject and object are integral.

source (Chapter 2)

### **The Mission Statements**

The sources considered within the context of "mission statement," include the university and the faculty of education, graduate studies mission statements (see Appendices S and T) and the university motto. These statements focus on scholarship, students, university personnel, and the community. Four themes characterized each of the statements, "excellence," "creativity," "innovation," and "collaboration." The assets of the mission statement are discussed in terms of the overarching goal, vision and purpose, and values inherent in the statements (Bradford and Cohen, 1984; Bryson, 1989).

### **Assets: Signs and Symptoms**

The university is named for Sir Isaac Brock, a Major-General who lost his life defending Canada in the War of 1812. The university motto, "*Surgite*," translating to "Push On," are the last words uttered by the Major-General to his men. These words provided the inspiration for the men to "Push On" to the victory they won. These words provide inspiration for the Brock University community.

The overarching goal, "Push On," inspired the excellence, creativity, innovation, and collaboration needed to win the War of 1812. Today it is intended to inspire the excellence, creativity, innovation, and collaboration needed to achieve the aim that the university envisions, "to enhance its stature as a centre of teaching, learning, research and other creative activity" (see Appendix S, p. 1).

The intellectual, physical, social, and spiritual well-being of the individual is valued, encouraged to be supported, and nurtured. The facilitation of "intellectual excitement," the stimulation of creative, critical thinking, "a passion for life-long learning," and the expectation of clear communication is fostered throughout the statements (see Appendix S and T).

Collaboration at all levels is valued and promoted, "among students and between students, faculty, and staff" (p.2), with administration, former graduates, the community, and universities in other countries. The university aims to maintain small classes and model democratic small group learning which it values. A liberal education is stated to include the arts and the sciences supporting the notion of integration of the rational, aesthetic, and spiritual dimensions. Interdisciplinary programs are encouraged. Co-operation with communities on societal issues, concerns, and research is included as an essential activity.

### **Problems: Signs and Symptoms**

Apart from the educator and the researcher, the participants of the class were unaware of the mission statements. The educator was not aware that there was a faculty of education, graduate studies mission statement. This statement was not readily available. Some members

were aware that a new mission statement was being developed for the university; however, they were not aware that the mission statement was completed and available.

On two separate occasions members raised the question of the university administrators' stance toward the issues of self-directedness, self-evaluation, and the participatory approach to learning; the questions were not pursued. Insight into these questions could possibly have been gleaned from an awareness of the mission statements.

**Assumptions: Mission Statements**

1. Subject and object are integral.
2. The human being is valued for his/her imagination, spiritual aspirations, emotional depth, and artistic creativity.
3. Imagination and will, intellect and will are valued equally.
4. The human being's power of self-expression and self-creation is recognized.
5. There exists a plurality of perspectives through which the world can be interpreted.
6. The rational, aesthetic, and spiritual realms are part of an indivisible whole.
7. Meaning of the common experience unfolds as we communicate one with another.
8. Autonomy and solidarity are of equal value.

source (Chapter 2)

### **The Classroom**

The room, table and chairs, participants' comments on the formative evaluations during interviews, are the sources of information considered within the discussion of the classroom.

#### **Assets: Signs and Symptoms**

The classroom was on the second floor of a modern building. It was located at the end of a corridor of offices. No other classes were in progress on the floor and the offices were closed. The space quickly became "our space," we quite enjoyed the quietness, the privacy and intimacy of "our place." The educator created an inviting atmosphere, an atmosphere in which we felt we belonged and in which we concentrated on the others as opposed to the room.

The last evening of the class we were requested to vacate the room as it was being used for another purpose. This evoked disappointment and punctuated the importance of the sense of belonging established in that place which we openly discussed before moving.

#### **Problems: Signs and Symptoms**

The classroom was formerly three offices. The partitions between the offices had been removed to create a classroom. The room was long and narrow and had three doors entering it from the hall. Windows extended down the length of the far wall across from the doors entering the room. A blackboard extended across one of the end walls. The room was vaguely reminiscent of an old fashioned classroom.

The size and shape of the room enforced the arrangement of eight small rectangular tables into the shape of a long rectangular table, similar

to that of a boardroom table (see Appendix O). Chairs of varying heights and varying states of dilapidation were placed irregularly around the table; an attempt was made each week to rearrange them in a more orderly fashion. There was no additional space in the room for coats, so they hung over the backs of chairs and various personal items were placed on the table.

The educator unsuccessfully attempted to find another room and additional small seminar rooms for small group activities. Space was at a premium so the class continued throughout the session in the one location.

The only complaint about the room discussed by the group at large during the sessions was the inconvenience it caused small group activities. Two people mentioned problems with the room in the formative evaluations, one complained of the discomfort of the chairs, the other, that the room impeded group discussion. These points were not raised during the discussion of the formative evaluation in class.

All nine people interviewed discussed the problem of the room size and shape, suggested the length of the table impeded large group discussions and especially mentioned the problem of lack of eye contact with one another around the table. Although this problem was discussed during the interviews it was not discussed during the class sessions where it appeared to be silently accepted.

#### **Assumptions: The Classroom**

1. Personal and unconscious forces influence human thinking and behaviour.

2. Places or physical environments can intentionally invite or unintentionally disinvite people to share and learn together.
3. The total environment and climate contributes to or detracts from personal and professional functioning. This environment includes places, programs, policies, processes, people.
4. There is no biological, geographical, social, economic, or psychological determiner of humankind's condition that it cannot transcend if it is suitably invited or challenged to do so.
5. Knowledge about the meaning of the world is constructed individually and negotiated in transactions with others.
6. Subject and object are integral.

sources (Chapter 2; Novak, 1992; Purkey & Novak 1984; Purkey & Schmidt, 1987; Purkey & Stanley, 1989; Roth, 1990).

### **Discussion: Context**

#### **Assumptions**

It is proposed that the assumptions underlying the natural setting, mission statements and the physical layout of the classroom, although implicit, influenced participation in the graduate studies class. It is also proposed that if the positive assumptions had been made explicit they could have been appreciated and have had a greater positive effect. The negative assumptions if raised could have been creatively addressed.

With respect to the natural setting and the proposed assumptions, "Berger and Luckman (1966) have noted that people both create and are created by their environments" (Purkey & Novak, 1984, p. 57). Siegel explicitly states, "A college campus also can and should become an



environment in which faculty and students are encouraged to view education as a cooperative, collaborative activity where process is as important as product" (Novak, 1992, p. 171). The founders of the university and the present-day administrators have practically demonstrated collaboration between people and between people and nature in the creation of a university setting and the mission statement.

The assumptions underlying the mission statements reflected the importance of personal growth and development and collaboration. An understanding of the assumptions and themes arising from the mission statements is enhanced by an understanding of the attitude expressed implicitly in the mission statements toward the subject and object relationship.

Subject and object are viewed as being interrelated in an inseparable web of relationships. The relationships "that I am" (Zorah, 1990, p. 139), emerging from this concept of the subject and object, range from the relationships and communication between the self and subelves, the self and others, the self and objects, the self and the environment. These relationships form the "basis for both personal identity and personal responsibility, and at the same time for intimacy and group identity" (Zorah, 1990, p. 140).

The concentration of the subject-object relationship is on the "between" as Martin Buber refers to it,

"Between" is not an auxiliary construction, but the real place and bearer of what happens between men ... .On the far side of the subjective, on this side of the objective, on the narrow ridge, where I and Thou meet, there is the realm of the between. (Freidman, 1991, p. 228)

It is this "intersubjective space" as Habermas (1984, 1989) refers to it where communication/dialogue occurs, the binding force where subject and object are drawn together.

The relationship is an I-Thou relationship where the object is treated as subject and drawn into and becomes part of the subject. It is not an I-it relationship where the object is objectified and distanced from the subject.

The university mission statement consistently emphasizes the importance of clear communication and collaboration. The kind of dialogue between the subject and "subject" relationship implied is a dialogue where each has the other in mind and the intention of establishing a living mutual relation between themselves. It is not the technical kind of dialogue prompted by the need for objective understanding or a monologue where two meet and speak with themselves as opposed to each other.

The assumptions underlying the classroom's physical layout unintentionally created inequality and impeded collaboration in the group. Lakoff and Johnson (1980) and Lakoff and Turner (1989) suggest that metaphors define reality. The classroom suggested the possibility of two metaphors or models, the "traditional classroom" model and the "boardroom" model. It is questioned whether or not these two models influenced the emergence of a leader, who sat at the "head of the table."

### **Participation**

The classroom and table around which we sat appeared to physically impeded round table discussions in the large group setting due to shape and size. Members did not have eye contact with many in the

group. It was suggested by two different members during the interviews that the varying heights of the chairs created inequality.

Although two people wrote about some of the physical problems in the room on their formative evaluations and nine people articulated the problem with the room set up during the interviews the problems were not discussed in the group.

### **Problem Statement**

How could the assumptions and the consequences of the assumptions underlying the context have been made explicit in the lives and experience of the graduate studies class members?

### **Theoretical Approaches**

Organizational development literature encourages the members of organizations to clarify and articulate the "purposes of the organization and the philosophy and beliefs that guide it" (Bryson, 1989, p. 96). It is suggested that clarifying and agreeing on the mission statement assumptions "inspires and unites people" and "focuses the discussion on what is truly important" (p. 97; Bradford & Cohen, 1984, p. 85). It is further suggested if we begin by identifying the basic assumptions of the organization we develop the "habit" of identifying assumptions that focus discussions (Bryson, 1989).

Intentionality, one of the four assumptions basic to invitational education theory emphasizes the importance of making assumptions explicit. Intentionality is the "ability of people to link their inner consciousness and perceptions with their intentions and overt behaviour" (Purkey & Schmidt, 1989, p. 52). The invitational model stresses "the

importance of purpose and direction and that an intentional pattern of behaviour based on publicly affirmed ideals" is foundational (p. 9). This requires the need to make assumptions explicit.

In the spirit of transformation theory, organizational development theory, and invitational theory it is being suggested that a discussion about the assumptions underlying the mission statement may have enhanced the possibility of more effective participation in the graduate studies class. It may possibly have set the example for raising assumptions underlying discussions that may have focused later discussions and drawn out people's inner thoughts that remained silent.

An understanding of the importance of small group work and collaboration discussed in the university mission statement may also have prompted discussion about the problems of discourse created by the room. Perhaps a creative alternative may have arisen through a group discussion about the problems with the room and long table.

It is also thought that a discussion of the mission statements would have located the course within the context of the university at large. It would have made possible a basic understanding of the thoughts and vision of founders, administrators, and others who created and are creating the university. It may have enhanced the role of the graduate studies class members in participating with the creation of the university.

**Assumptions: Context Discussion**

1. The subject-object relationship includes relationships between the self and subelves, the self and others, the self and objects and the self and the environment.

2. The subject-object relationship includes three component parts the subject, the object, and the intersubjective space.
3. Clarifying and agreeing upon the assumptions underlying mission statements and discussions inspires and unites people and focuses discussion.
4. Education is a cooperative, collaborative activity where the process is as important as the product.
5. Intentionality is the ability to link inner consciousness and perceptions with intentions and overt behaviour and to make assumptions explicit.

source (Bradford & Cohen, 1984; Bryson, 1989; Purkey & Novak, 1984; Purkey & Schmidt, 1987; Purkey & Stanely, 1989; Zorah, 1990)

### **The Major Element: Events**

The consideration of events of the graduate class experience include the course and the classroom activities. The sources of information used to gain insight into the events include the course objectives, outline, evaluation contract plan, and the agendas (Appendix L), the participant observation write-ups, class members' journals and interviews.

The events were characterized ambiguity and conflict of the assumptions underlying the events and by conflict between the assumptions about the experience and the actual experience. The various areas where conflicts arose compose the content of this section.

It is necessary in this section to include interpretive remarks with the discussion of the signs and symptoms of the assets and problems to increase clarity of understanding. Conflicts identified are summarized at

the end of the area discussed. Four areas identified as being problematic include the atmosphere, the preorganization of the course and weekly activities, self-directedness, and participation.

### **The Atmosphere**

The atmosphere appeared to be most congenial. The educator created an inviting atmosphere where people felt accepted. However, upon closer examination of people's thoughts about the experience, tensions and conflicts became apparent. These thoughts that remained implicit throughout the experience are explored.

### **Assets: Signs and Symptoms**

On the first evening of the course everyone was warmly welcomed, the atmosphere was inviting. The educator was attentive and attempted to set people at ease. People were encouraged to find someone in the class they did not know and interview that person in order to introduce them to the rest of the group. Everyone enjoyed the exercise; one journal entry read, "The opening exercise—personal introductions of a colleague—created a welcoming and warm environment conducive to sharing and nurturing ideas, theories, philosophies, and techniques."

This atmosphere continued throughout the course and continues yet as we meet one another. One of the members captured the essence of the atmosphere in a remark during her interview, "There was an environment of trust ... people didn't put one another down." Another said, "I enjoyed (the educator's) style. I enjoyed her openness and how she tried to really encourage the class to participate and to be self-directing."

**Assumptions: Assets/Atmosphere**

1. People are able, valuable, responsible and should be treated accordingly.
  2. People possess untapped potential in all areas of human development.
  3. People's potential can be realized by courses that are designed to invite development by educators that are intentionally inviting with themselves and others.
  4. Human beings have the power of self-expression and self-creation.
- source (Chapter 2; Purkey & Novak, 1984; Purkey & Stanley, 1989)

**Problems: Signs and Symptoms**

The desire to be caring, nurturing, and friendly appeared from people's remarks to preclude problems being addressed in the group. Throughout the different interviews people mentioned that they would like to have addressed the various problems that emerged in the group but did not. One person stated, "We took on a warm, mothering role ... nobody wanted to offend ... I wasn't willing to do that." Another person pointed out, "On breaks people would complain about some of the things people were doing ... but nobody addressed them."

It is questioned whether this same need to nurture and as another person mentioned "be nice to one another" also inhibited argument that is necessary for debate. During the interviews each person was asked at one point if he/she thought we entered into critical debate; the answer was unequivocally, "No!" As one person said, "I think that was the main

thing that was missing ... ." We appeared to have friendship and desire for critical debate but lacked the argument to debate.

**Assumptions: Problems/Atmosphere**

1. Synthesis of eros and logos involves a synthesis of passion and mind, friendship and argument, desire and truth as exemplified by Socrates.
2. Security of friendship removes the creative power of "dissent", discordance, disagreement.
3. Security fits teaching and learning into a frame that leaves no room for reflection on the why and whereto of learning and teaching.
4. It is better to conform to the unspoken rules of the group than to openly oppose the rules or raise them for discussion.
5. Security is preferred to uncertainty.
6. It is important to be personally accepted in the group.

source (Misgeld, 1985; Chapter 2)

**Conflict**

Conflict possibly existed between the desire for critical debate and the importance of friendship.

**Preorganization of the Course**

The educator presented the class with a well organized course outline the first evening (see Appendix L). The course envisioned the implementation of two important tenets of adult education self-directedness and participation. The outline complimented the description of the course in the university bulletin. The educator invited comments



about the outline stating also that she was open to changing the outline to accommodate the class members. No one suggested any change.

On a weekly basis, agendas were provided for the evening; time was allotted for review, discussion, and potentially changing the agenda. The agendas were accepted by the class without alteration and basically without discussion. Once again the problems and tensions people felt remained unspoken.

### **Problems: Signs and Symptoms**

The tacit assumptions underlying the preplanning of the course provide the basis of the discussion. Tensions existed between the assumptions underlying preplanning and the tenets of adult education, between educator and student expectations, and the intent of the course and the format and language of the preorganized course package. Each of these is presented separately.

### **Tenets of adult education: Self-directedness and participation.**

From the onset of the course self-directedness and participation were emphasized as being important tenets of adult education (see Appendix L). The underlying assumption of these tenets is that people are co-initiators and co-constructors of their experience (Brookfield, 1985a & b, 1991 a & b; Cranton, 1992, Mezirow, 1990b). By preorganizing the course objectives, outline, and agendas on a weekly basis without the learner, the educator sent out an opposite message to the members of the class.

**Assumptions: Tenet of Adult Education & Experience**

1. **Tenet:** The learner and educator are co-initiators and co-constructors of the experience.
2. **Experience:** The learner is a vessel waiting to be filled.

source (Freire, 1990; Misgeld, 1985)

**The educator and learner expectations.** The educator from the onset of the course expected to "slowly and gently," in her words, introduce the concept of self-directedness. This concept possibly was appropriate for those in the group who were not familiar with the concept. The group, however, was primarily made up of people who had previously had experience with self-directedness (see Appendix M). Only three of 13 had not had experience with the concept.

Six had teaching experience with the concept, five of those six had both teaching and learning experiences with the concept. These experiences were not drawn upon by the educator or offered to the group by those experienced people. The majority of the experienced people accepted the status quo.

Two members of the group captured the essence of the group response and provide two differing personal viewpoints. A journal account read, "I appreciate and enjoy an organized class and the agenda is something I value ... having a guide to the evening is an assistance for me to keep focused."

Another woman commented during the interview when the course was over,

My perception was we never really reached what I expected. I'd expected the class to take more control in terms of subject areas ... what we would do within the class ... actual exercises we did not design, (the educator) had control and brought the agenda and tended to follow it ... as a class I felt that we wanted that kind of structure and weren't ready to give it up ... I expected much more for us to talk about what topics we wanted to talk about ... how we could meet our own objectives...instructional method ... just in terms of having an agenda handed out to us each week and the class was very much happy with that, I think I was one of the few people that wasn't.

Although this person personally would like to have seen the class take more control, she was sensitive to the general tenor of the class and did not oppose it. Although this person was assumed to be alone in wanting to participate with the course development and weekly agendas she was not. Her thoughts were reflected in all but two of the nine interviews.

**Assumptions: Educator and Learner Expectations**

1. **Educator:** The concept of self-direction needs to be introduced slowly.
2. The learners and educator are in control of the class.
3. **Learners:** Self-directed learning is a new concept to some learners
4. Some learners expected to plan the course and weekly agendas.
5. The educator is in control of the course.

**Preorganized course package: Format and language.** The course outline was clearly written, well organized, and provided direction for the course. On the one hand this represented thought and vision on the part of the educator. On the other hand, the preorganized course package was reminiscent of the "business of instruction" and the managerial rationality of "industrial production" (Misgeld, 1985, p. 89 & 87).

The learner objectives focused on the mastery of end points (Appendix L). The instruction provided for "planning an evaluation contract" also focused on developing predetermined measurable objectives or end points. Underlying this rationality is the concept of the "world as a machine" and the Cartesian-Newtonian principles that are appropriate for production rather than the notion of the "world as a living organism" or of an "open system" that is more characteristic of a learning environment.

It is proposed that this approach to course planning and contracting undermines the assumptions of the tenets of adult education and subtly limits participation in the group. It does so in a variety of ways.

First, it is proposed that discovery of new learning between the educator and the learner is inhibited by predetermining the outcome of either the course or the evaluation contract. If learner and educator are truly constructing the experience together, the unfolding of the experience cannot be predicted. It is a process of discovery. The general topic is known and can be articulated but not the specific objectives. The discoveries and their consequent pursuits are not known in advance. This situation was noted in several of the members' journals, as reflected by this comment, " My evolving contract that has now (end of course) been through many changes," and as expressed in an interview by another

person, "I find it very difficult to write papers at the same time as I'm attending classes; when classes are over I'm ready to reflect ... ."

By presupposing the objectives of the program "questions concerning reason, principles, purpose, ends, origins, motives, and the legitimacy of the educational activities" (Misgeld, 1985, p. 91) are blocked. Means take precedent over ends. Active reflection on meaning is not solicited (p. 90). Subtly discussion is limited both in terms of content and depth.

The process of preplanning the course without the learners involved promotes organization and certainty but avoids conflict and uncertainty, the very basis of debate. The control and planning is reminiscent of the "bureaucratic mind" that Weber has warned us about (Bernstein, 1992; Misgeld, 1985; Schön, 1983), the "functional rationality" which objectifies us, and we become merely a client or a customer (Habermas, 1984, 1989).

It is proposed that the language, "instructor and student," used in the outline, also limited the experience and stood in conflict with the actual intent and desire of the educator. The terms "instructor" and "student" fit the management rationality. Instructor implies that education is "instruction" or "training" (Misgeld, 1985, p. 91). Student implies a subservient position. The learner is the object of the experience, not the constructor of the experience (p. 90). The words used in "planning an evaluation contract" ("tricky business" and "intimidating") although meant in a sympathetic way, did not promote the confidence and independence intended by the educator or the goal of self-directness.

**Assumptions: Prepackaged Course Format and Language**

1. The learner is the object of the instruction.
2. The learner is a vessel waiting to be filled.
3. The learner is not a constructor of learning.
4. The learner is not a co-initiator of the learning process.
5. Means take precedent over ends.
6. Human action is not free but is determined by motives regarded as external forces acting on the will.
7. The metaphor of the world is a machine.

source (Chapter 2; Freire, 1985, 1990; Misgeld, 1985)

**Conflicts**

Conflict existed between the assumptions of the tenets of adult education, self-directedness and participation, co-initiating and co-constructing and the preplanning of the course that tended to objectify both learner and course content.

- Educator and learner expectations for the course were in conflict.
- Some learner expectations for self-directedness were in conflict with their acceptance of the preplanned course and agendas.
- The preorganized course package format and language supported a managerial rationality as opposed to a discovery rationality that may have resulted in creativity and innovation.
- Preplanning of the course was in conflict with the goal of participation. Preplanning was in conflict with the mission statements goals of creativity and collaboration.

## **Self-Directedness**

### **Assets: Signs and Symptoms**

Many of the members of the class were delighted with the opportunity to plan and organize their own assignments for the course. Comments were made such as, "This was the first class that I encountered that I was given permission to explore what was important to me ... that permission and that opportunity was most important."

Others commented generally on the concept of self-directedness, "I think it is hard but I'd back it one 100 percent! ... I think it is a marvelous way to learn." "It struck me as odd and somewhat sad that after so many years of education, that so few courses have offered this format. It makes me wonder what education is about."

### **Assumptions: Assets Self-Directedness**

1. Human beings have the power of self-expression and self-creation.
2. Human beings have the freedom to think independently and self-transform.
3. Learners are the constructors of the learning process.

source (Chapter 2)

### **Problems: Signs and Symptoms**

The problems with self-directedness fall into two areas. The first relates to the class members' definition of self-directedness. The second relates to the emphasis placed on Brookfield's definition of self-directedness by the class experience.

The definition of self-directedness and the assumptions underlying the concept were not clarified at the onset of the course. The concept of self-directedness varied from person to person. For some it meant planning the assignments for the course for others it implied a way of learning but there was ambiguity as to what that meant.

The evening we discussed self-directed learning, we examined it from Brookfield's point of view (see Appendix Q, Week 4). This view considers self-directed learning to have two components, a mechanistic component, that of planning the "external management of instructional events" and an internal component, "a change in consciousness" (Brookfield, 1985a, p. 15). The emphasis of Brookfield's definition is on autonomy and empowerment.

Implicit in this definition is the notion of transformative learning and the educator's role in challenging learners to examine their assumptions, and to "consider alternative purposes" and to place learning in "some broader context" (Brookfield, 1988, p 102). Implicit is the dialogue between learner and educator which Brookfield emphasizes in his work on developing critical thinking (1991a) and on skillful teaching (1991b). These two concepts were not explored by the members of the class.

The class discussion and experience placed emphasis on the "mechanistic" aspect of the definition and on the readiness for self-direction (see Appendix Q). The aspect of assumptions although addressed in several different ways (see Appendix Q) was not adequately tied into the notion of self-directedness. It was viewed as a separate issue. This was further reinforced by the discussion about assumptions also being related to Mezirow's work on the transformative dimensions of adult learning. It is proposed that the strong focus on "self" and self-direction



primarily relating to planning one's own assignments detracted from the need to learn "together" that is implied by Brookfield and Mezirow in the search for assumptions and alternative ways of viewing the world and their understanding of the term self-directedness.

**Assumptions: Problems Self-Directedness**

1. The more we emphasize one aspect of our description, the more the other aspect becomes uncertain.
2. Achieving consensus is not essential/valued.

**Conflict and Ambiguity**

Ambiguity existed about the definition of self-directedness. Conflict existed between the importance of the twofold definition of self-directedness and the overall class emphasis on only one aspect of self-directedness (a minority of students recognized and connected self-directedness with assumptions and changes in consciousness this was discussed in journals as opposed to in class).

**Participation**

Participation was enhanced by the variety of instructional methods used throughout the course. A variety of tensions and conflicts existed about participation which was not seen as a democratic process. The educator, as stated previously, included democratic participatory discussion to be of importance. All members interviewed about the class experience recognized that the potential for a democratic participatory discussion existed and all would like to have seen it work. The educator and other interviewees sought in the interviews to discover why the group

had resisted or inhibited participation. These thoughts are pursued in the following discussion.

### **Assets: Signs and Symptoms**

A variety of different instructional methods were used throughout the course (see Appendices Q and R). These methods appealed to differing learning styles, personality types, and the cognitive and affective domains of learning. Large group discussions were reserved for the discussion of the preparatory readings, the main topics for discussion. The small group and individual activities tended to be task oriented and enhanced an understanding of the main topic(s) of the evening.

### **Assumptions: Participation**

1. Knowledge of the worlds underlying structure and meaning entails the exercise of a plurality of human cognitive faculties, rational, empirical, intuitive, imaginative, and moral.
2. Meaning of common experience unfolds as people communicate one with another.
3. People learn differently.

### **Problems: Signs and Symptoms**

Participation was emphasized as an important feature of adult education in the preorganized course package. The educator planned approximately half the activities to occur in the large group setting and a quarter to occur in small group settings (Appendix, R). There were no introductory remarks about the process of participation.

The educator expressed in her interview when we were discussing the research findings that it was important for her "to give up power" in the group. Her desire was for equality amongst members. There was also a strong desire to experience co-learning as an educator with the group.

The educator explained that she did not wish to discuss the fact that she desired to give up power as it was thought "it would cause bedlam and mayhem in the beginning because people who haven't been exposed to self-directed learning need to be gently taken towards it ... you would get too much resistance."

The group taking control of the discussions in a non-democratic way was problematic for the educator. She stated, "It bothered me a great deal and I did struggle a whole lot with whether I should go back, take steps back and take more control, but I couldn't do it ... ." The educator thought that people were "living the process ... people were very aware of that" and that it did not need to be verbally addressed.

The educator was very aware that people "were quite happy to, once I gave up control, to let someone take control." She believed that "people are socialized to not really participate in democracy." ... and that it was a "natural process that when one person gives up control someone else is going to take it until they see it does not have to be that way."

The educator's views and anxiety about the process and problem of democracy were also expressed by others in the group. Another member stated,

I was continually struck and I always found myself frustrated leaving the class and then I would analyze it a little on the drive home ... from day one the process was never dealt with ... it just seemed as

though somehow the message being given - or the norm being set very early ... was not to address the process.

Various members thought that "there was a role for more direction." Initially the role would be seen to be the educator's and then after a pause people would suggest it was equally their responsibility to do something about the process too.

Members of the group repeatedly suggested in interviews that the process, although meant to be democratic, was not. As one person said, "I didn't see it or feel it." The educator was seen to have control and power over the topic. The emergent leader was seen to have "control over the group" as one person put it. Another person stated,

We didn't have to say anything because (the leader) would carry the ball ... we all wanted a traditional classroom, so we didn't care if it came from (the educator) or the (leader) ... we're socialized into it ... that's the way it is. That's the way it has been.

The less we discussed the process the more the internal struggle manifested itself in the individuals in the group.

Conflict and anxiety existed in the group over preferences for large group and small group discussions. Many of the people interviewed pointed out the difficulty of trying to accommodate time equally for 18 different participants; there was insufficient "air time" as they referred to it. These people also expressed a definite preference for small group discussion, small being three to five people. A minority in the group had a preference for large group discussions; these tended to be some of the

main participants in the large group who in some sense formed their own small group in the midst of the large group.

Another area of conflict about participation related to the preference for practical or theoretical topics. Seven of 10 people expressed a particular desire for the practical application of theory in the formative evaluations. The group characteristically had a penchant for task-oriented activities, as captured in a journal entry, "I can work and learn effectively with others in a small group that has a focused task." Others would like to have had "discussions that moved beyond merely "translating" the readings ... to expand theoretical knowledge" as written in a formative evaluation."

#### **Assumptions: Problems Participation**

1. Consensual group rules are important and need to be articulated.
2. Consensual rules evolve in a group thus rules must be consistently revised.
3. Process is as important as the outcome.
4. The norm is not to address the process.
5. Human beings are not co-constructors of their experience.
6. Action orientation and goal orientation are important human attributes.

source (1 & 2 Brookfield, 1991b; Tiberius, 1990)

#### **Conflicts**

Conflict existed between the educator's desire for democratic participation and the lack of democratic participation in the outcome.

Conflict existed between the educator's desire for democratic

participation to naturally occur in the group and its lack of occurrence.

Conflict existed between the educator and the learners' expectation of the natural occurrence of democratic participation and their underlying belief in the strength of being socialized to not be democratic.

Conflict existed between the educator's choice not to discuss the process and some of the learners' desire to discuss the process.

Conflict existed between the possibility of the process being democratic and the size of the group. There was insufficient time for 18 people to have equal time to contribute.

Conflict existed in the group between preferences for large and small group discussions.

Conflict existed in the group between preferences for practical and theoretical topics of discussion.

### **Discussion: Events**

#### **Assumptions**

A central problem in the group was the implicit nature of the assumptions and expectations of group members. Conflicting assumptions about the experience, content and process were apparent. The group unconsciously vacillated between understanding themselves as co-constructors of the events and objects of the events. People tended primarily to project behaviour and thoughts that appeared to be directed by a Cartesian - Newtonian frame of reference. It is proposed that this thinking reduced a sense of responsibility to the group and each other. The assumptions subtly emphasized the "self" as opposed to the "other." It is proposed that the assumptions also subtly reduce one's sense of

personal power as they placed the person in the position of object and passive receiver of the education as opposed to the more powerful position of co-initiator and co-constructor of the experience.

### **Participation**

It is proposed that the concentration on the "self" was partly rooted in insecurity that sought solace in the status quo, the certain, and the familiar. Members lacked the courage to take the risk to raise issues that would disrupt the situation and create the temporary chaos out of which might have arisen new ideas, a new synthesis.

The group members had differing expectations, differing experiences that were simply not articulated. They were not drawn out or offered. It is possible that if articulated they could have been the basis of both argument and discovery.

The untapped potential, the possibility for discovery, was present in other ways. Members' journals were alive with thoughts, ideas, critical questions that could have been the basis of argument and discovery. They simply were not discussed in the group.

In summary, the group members did not view themselves as co-initiators of content and process. They did not articulate the rules or the assumptions that shaped group behaviour. Many mixed messages were given. It is proposed that these situations both reflected and impeded the process of participation.

### **Problem Statement**

How could the graduate class members have more effectively enhanced participation?

### **Theoretical and Creative Approaches**

It is proposed that if the group members had first identified their stance on and understanding of the "subject-object" relationship they could have envisioned themselves as co-initiators and co-constructors of the entire experience. Envisioning themselves in this position may have enhanced participation.

It is also proposed that the group needed to make explicit the rules that they wished to follow in discussion from the onset of the program. In addition, there was a need to examine and make public the assumptions and definitions of the two central tenets of self-directedness and participation.

By defining self-direction and understanding the implications of co-initiating it would naturally follow that the members of the class would co-develop the course that they wished to examine for the session and together plan the weekly agendas. It is possible, then, that the problems of differing preferences for small and large group discussions and practical and theoretical topics may have been discussed and consensus arrived at that may have been fulfilling for all members.

Cranton (1989, 1992) and Brookfield (1991b) emphasize the importance of the educator knowing the audience and developing the content of courses together with the group members to suit the real needs of the members.

Brookfield (1991a & b), Cranton (1989, 1992), Tiberius (1990), Schmidt (1993) and collaborative education theory (Jacobi, 1992; Jacobs & Ilola, 1990; Robbins, 1991; Rosen, 1992) and invitational education theory (Beardsley & Jacobs, 1992; Purkey & Novak, 1984; Novak, 1990) and the



feminist literature (Benhabib & Cornell, 1987; Bannerji, Darty, Dehli, Heald, McKenna, 1991; Weiler, 1991) stress the importance of discussing and understanding group process. It is also advocated that if group process is to be engaged in it is important to devote time developing an understanding about it prior to engaging in it. It is advocated that assumptions about the process be made explicit as events occur in the group.

The conflict between preference for small or large group discussions raised the issue of group size and membership. There was a strong preference for small group (3-5 people) discussion amongst the members of the class. Knoop (1991) suggests learners be placed in small groups according to compatible personality types. The learners remain in the same small groups throughout a semester. Having experienced the powerfulness of the approach it is proposed that this method would have been beneficial for the graduate studies class, enhancing participation.

Finally, it is proposed that the conflict between thinking of adult education in terms of either self-directedness or participation and the weakness of separating them from the overall concept of education requires a different conceptualization of adult education. The following concept of education is developed from the Kantian understanding of Enlightenment emancipation and the classical concept of education (Misgeld 1985).

Education is self-education; the very act of becoming educated, of daring to use one's own intelligence, imagination and will. One's sovereignty as a person is a central feature of this concept. The learner and the educator in their interaction are placed at the center of the education transaction. Educators and learners

confirm one another in their identity as inquiring selves in the very process that generates what they are jointly committed to: an acknowledgment of one another as equally significant participants in the process. This includes raising questions about reasons, grounds, principles, purposes, ends, origins, and motives. (p.p. 81, 89, 97)

### **The Major Element: People**

The focus in this section is on the members of the graduate studies class and the influence of their archetypes on the group. The sources of information examined included the participant observation write-ups, journals, interviews, papers, and the results of the psychological type test and the analysis of archetypes (see Appendices J and K). The association between Jungian psychology and the behaviour of individuals in the group and the group as a whole is explored.

A distinctive feature of Jung's psychology is his emphasis on the role of the archetype. Jung defined the term "archetype" in a variety of ways in his work. The dictionary (Hawkins and Allen, 1991) definition is, "1) A an original model; a prototype. 1b) A typical specimen. 2) (in Jungian psychology) A primitive mental image inherited from man's earliest ancestors, and supposed to be present in the collective unconscious. 3) A recurrent symbol or motif in literature, art, etc." Jung states "just as conscious apprehension gives our actions form and direction so unconscious apprehension through the archetype determines the form and direction of instinct. Archetypes are the necessary *à priori* determinants of all psychic processes" (Nagy, 1991, p. 143). At the most

fundamental level archetypes are understood to be patterns that structure thought and subsequently give order to the world.

Following Jung's concept of archetypes (Campbell, 1987; Nagy, 1991; Storr, 1983) and Bolen's further work on archetypes (1984, 1989), the members of the group are considered in terms of their archetypes and the influence of the archetypes on the experience of the group as a whole. This is the first experience of the researcher to consider archetypes. The analysis of the archetypes and their influence proved to be interesting. The results are seen as being part of the unconscious influences on the group and are considered tentative at this early stage of application.

The outstanding issues in the major element, events, provide the framework for the exploration. Issues are posed as questions. The questions considered include: Why was the course preorganized and why did members not in favour with preorganization not challenge this? Why did the group support the emergence of two males from the group? Why did the group create a traditional classroom? Why did the group not function in a democratic participatory manner in large group sessions? Why were the discussions not in-depth or exploratory in nature?

Following the general organization of this chapter, the chief characteristics of the group are described in terms of the predominant archetypes characteristic of the group. The characteristics formulate the signs and symptoms of the assets and problems of the group. Alternative characteristics of archetypes missing from the group are identified. Underlying assumptions are identified. A problem statement is named. Characteristics that were missing began to emerge at the end of the session. These characteristics are described and considered as part of the response to the problem statement. Theoretical approaches to the

problem are discussed. Members of the group are referred to by the name of their archetype as opposed to fictitious names.

### **The Graduate Studies Class Archetypes**

The Greek gods and goddesses are images of men and women that have lived in the human imagination for over three millennia. They are patterns or representations of what men and women are like. They represent inherent patterns or archetypes that can shape the course of a person's life. The myths of the gods and goddesses disclose what is important to them and "express in metaphor" what a person who resembles them might do (Bolen, 1985, p. 23).

For centuries the goddesses that were acceptable in Western culture were the vulnerable goddesses whose characteristics are exemplified in the roles of "maiden, wife, and mother" (Bolen, 1985, p. 28). These goddesses have a consciousness that is characterized by diffuse awareness. They have "an attitude of acceptance, an awareness of the unity of all of life, and a readiness for relationship" (Bolen, 1985, p. 133).

During the 1970s the "vintage years" for the virgin goddesses, particularly Athena and Artemis, women emerged from the periphery of our culture to center stage (p. 29). These included the feminists and the career women. They have characteristics that resemble those of the gods; they have an inner drive to develop talents, solve problems, compete with others, and clearly express themselves. They are "one-in-themselves" (p. 36). Their consciousness is focused, they become absorbed in what they do. They are clearly goal and achievement oriented. They adapt well in "a man's world."

Of the group of 13 women, 11 had a dominant virgin goddess archetype. One young woman had a dominant vulnerable goddess archetype, Hera, with an auxiliary virgin goddess archetype, Artemis. Another woman had a dominant alchemical goddess archetype, Aphrodite. The educator's archetype was Athena, one of the virgin goddesses.

Athena, the goddess of wisdom and crafts, has a particular strength for purposeful, rational thinking. She enjoys solving practical problems. By nature she is a strategist. She can think and coolly assess situations under the most difficult of circumstances. She knows what the game is and how best to score points and knows the bottom line. Mastery and planning are emphasized by her. She enjoys learning objective facts, writing papers, and taking tests. She explains things clearly and has a preconceived notion of what should be. Athena excels in the academic world, the scientific, military, business, and political worlds.

Athena supports the status quo and operates according to established norms. She is a defender of patriarchy and values tradition, and the legitimacy of male power. By nature she is "father's daughter." She enjoys being in the midst of male action and power. She naturally gravitates toward men who have power.

Of the 11 women who had virgin goddess archetypes, five were Athena. No Athena's were in the silent group, three were in less vocal group and one was in the conversant group see appendix K. Each of these women form strong alliances with men. When Apollo, the first group leader, emerged, he found himself supported by the Athena women; his position was not challenged but "enjoyed" as the educator wrote in response to one of my personal observation write-ups.

Aphrodite was in the conversant group and her role a "vision carrier" for men was often seen in action. She nurtures vision and sparks creativity, her remarks often spurred along Apollo, the emergent leader. Apollo, in addition, admires competent women and so was comfortable with the support.

The original leader had an Apollonian archetype. The second leader had an auxiliary Apollonian archetype. Apollo has a focused consciousness and sets goals and reaches them. Within the two weeks of the course the emergent leader, who was unfamiliar with self-directed learning, chose his assignments and clearly wrote about his objectives for them in his journal. Apollo appreciates clarity and form; he like Athena, prefers objective assignments. He is drawn to mastery. He is uncomfortable with chaos. Apollo promotes the traditional classroom. He thinks in a linear way and drives to achieve.

Characteristics of the other archetypes in the group also supported goal-oriented, focused thinking. Zeus exalts control, reason, and will. He was decisive and a clear thinker and preferred practical tasks. The member with the Zeus archetype exemplified the characteristics of the type during his student presentation to the group. Prior to the class he conducted a needs assessment of the groups' learning needs about his topic, on the day of the presentation he presented each member with a well organized "corporate" package to accompany his presentation.

Hades, another member, had his own quiet inner strength which emanated from his corner of the room. He had a Zeus auxiliary archetype and preferred the traditional classroom, order, and an authoritarian approach. One woman in her interview said, "Hades needed to be

drawn out ... he had lots to offer ... a serious thinker ... great qualities ... but very shy, a thinker, but sensitive ... I wanted to hear more from him."

A young man, another Apollo, sensitively led small group activities and demonstrated the clarity of thought characteristic of Apollo. His comments during the interview about the class experience were clear, ordered, and visionary in nature.

All of the women with Athena archetypes demonstrated clear thinking. Their journals were thought provoking, full of critical questions and observations. They were each goal oriented; one woman wrote, "I've been drilled to the teeth on setting objectives and goals and working from these objectives ... I am quite happy with this process and how it works." Another wrote, "I enjoyed the chapter on objectives and instructional sequencing."

Two Artemis women in the group were in the silent group. They were both women in the 35 to 45 age range. Both had a sense of intactness, self-confidence, and independent spirits. They were both reflective and happiest in small group activities. Each was goal and achievement oriented. Three Hestian women joined them in the silent group. These women were centered, peaceful women who had a great sense of intactness. They, too, had focused consciousness. They did not desire power but were rather the still point that gave meaning to our experience with the occasional insightful remark. They preferred small group work. An interview with one of the Hestian women provided much insight about the group activities.

### **Assets: The Chief Characteristics of the Group**

The central characteristics of the dominant archetypes represented in the group included a focused consciousness, goal orientation, achievement orientation, appreciation of tradition, order, harmony, rational logical thinking, action orientation, self-directedness, independence, and intactness (see Athena, Artemis, Hestia, Aphrodite, Hera, Apollo, Zeus, and Hades in Appendix K).

### **Assumptions: Chief Characteristics of the Group**

1. The world is an ordered cosmos.
2. Genuine human knowledge can be acquired through rigorous employment of human reason and empirical observation.
3. Individualism is valued and promoted.
4. There is an inherent hierarchical order in nature.
5. Causality is linear.
6. Means take precedence over ends.
7. The Cartesian-Newtonian frame of reference is the prevailing paradigm of thought.
8. Knowledge is power.
9. Traditional values are important.

source (Chapter 2)

### **Problems: The Missing Characteristics in the Group**

Upon reviewing the archetypes not represented in the group characteristics were identified that were predominantly missing during large group discussions. These included a sense of relatedness, affiliation, connectedness, participation, receptiveness, communication amongst us,



engagement between us, discovery, creativity, passionate interaction, expression of emotional depth, expression of the images of the rich inner world, the pursuit of meaning, imagination, commitment, and argument (see Demeter, Persephone, Poseidon, Ares, Hephaestus, and Dionysus, Appendix K).

The characteristics associated with relatedness and affiliation were present during break times, before and after class, and on a one-to-one basis between members of the class. The characteristics were evident between the educator and the learners in counseling sessions and evident in the dialogue in journals between educator and learner.

**Assumptions: Missing Characteristics of the Group**

1. The world is a unitary living organism.
2. Knowledge of the world's underlying structure and meaning entails the exercise of a plurality of human and cognitive faculties, rational, empirical, intuitive, aesthetic, imaginative, and moral.
3. Autonomy and solidarity are valued.
4. Order in nature tends to be heterarchical.
5. Causality is mutual.
6. Reasons, grounds, principles, purposes, ends, origins, and motives are all important.
7. Quantum theory assumptions underlie these characteristics.
8. One's sovereignty as a person is valued.
9. Social systems are open systems and characterized by change, disorder, instability, nonlinear relationships, and temporality.

source (Chapter 2; Misgeld, 1985)

### **Problem Statement**

How could the missing characteristics be brought forth from the members of the graduate studies class?

### **The Natural Emergence of Characteristics**

Some of the missing characteristics began to emerge from the group toward the end of the semester. A new leader emerged from the group. The leader who emerged had the dominant characteristics of Hermes and the auxiliary characteristics of Apollo. He also demonstrated characteristics of other gods such as Dionysus and Hephaestus. This person was a philosophical, creative thinker, an artist. He had the particularly strong attribute of communicating in a clear and concise way. His ideas were well organized and well thought out. He had a sense of freedom; he was not bound by tradition. He was a seeker of meaning and truth. He was inner directed as opposed to outer directed. He had a passionate intensity and interest in the aesthetic and the creative. Many people mentioned both in journals and interviews how refreshingly different he was to any other member of the group and how they appreciated his ability to facilitate the group to think critically. His knowledge and love of art and philosophy was especially appreciated.

Two women present in the group also had characteristics that the group generally did not have. Hera, a woman in the silent group, had the sense of relatedness characteristic of the vulnerable goddesses. Her student presentation consisted of a short didactic presentation of about 15 minutes in length. The class members were organized into groups of their choice and given specific tasks to complete, and finally brought back into the total group for discussion. Hera's manner and her sense of

"being with" the members drew everyone out. Everyone had something to add to the large group discussion. There was a spontaneity and marked difference in the discussion.

Aphrodite's presentation also had a magical attribute to it. The immediacy and sense of engagement Aphrodite had was an entirely different experience. At once she was focused and receptive. Her presentation was imaginative, the topic being about communication, a research project on "talking" done by public school teachers in collaboration with one another. She did not miss a cue in the audience and she, too, drew out people who usually had nothing to say in the large group setting.

Another young woman with a Hestia/Aphrodite archetype also did a student presentation. Her topic was on TVO educational programming. It added an artistic and mass communication perspective to adult education, very different to our usual focus.

Present throughout the entire semester were seven women with evident auxiliary Demeter archetypes. These women were caring, compassionate, and they nurtured people in the group. It was observed, however, that these women tended to function either as their dominant archetype or their auxiliary archetype. The resultant behaviour was not balanced.

Bolen suggests that the Aphrodite consciousness is at the basis of "good communication and (the) creative process." The ability to be attentive and receptive while conversing provides a dynamic that results in "discovery-the birth of something new" and is a moving and deep event (Bolen, 1985, p. 229). This ability finely balances the attributes of focused consciousness and receptiveness .

The group missed all together the passionate intensity and visceral reaction of Ares, god of war, lover, and dancer (Bolen, 1989), the emotional intensity of Poseidon, god of the sea. The characteristics of these gods add to the passion and desire needed in argument and the search for truth.

Given time it would have been interesting to see if other characteristics that promote participation would have naturally emerged from the group. The slowly emerging characteristics raise two thoughts. One, what would the advantages be of having core groups of students working together on courses throughout an entire degree program, providing the opportunity for the development of effective group dynamics that would foster and support discovery? Secondly, how might groups be facilitated to speed up natural processes that result in democratic participatory discussions that are challenging?

### **Theoretical Approaches**

The examination of archetypes identified possible unconscious influences on the group. These insights provide a way of thinking about group process and some of the problems identified in the events section of this chapter. The insights arising are purely speculative but interesting to consider.

The questions posed at the onset of the chapter will briefly addressed. Possible theoretical and creative approaches to enhance the positive characteristics identified and draw out the missing characteristics are discussed in connection with the questions posed.

**Why Was the Course Preorganized and Why Did Members Not in Favour with the Preorganization Not Challenge This?**

The predominant archetypes in the group had a preference for order. People tended to prefer objective thinking and strategic planning. Preplanning the course in an orderly fashion was a natural process for the educator. It also fulfilled the expectations of administrators and learners. Learners who expressed the desire to co-initiate the course had Athena, Apollo, and Artemis archetypes that desire order.

The question is raised, "How can these positive characteristics that desire order and direction be integrated with characteristics that allow co-initiating and discovery, characteristics that are supported by instability, change and often disorder?" The literature identified the problem of a managerial rationality but did not offer practical approaches to overcome the problem. A possible approach is identified through actual experiences in Dr. Cranton's classes at Brock University.

Learners, in these classes, actually develop the objectives for the course and design the instructional methodology in collaboration with the educator. The objectives are clearly written and provide the group with direction. However, these objectives are not considered permanent, they are consistently reevaluated in light of the proceedings, and changed as new discoveries are made. Everyone participates with the review and the changes in the objectives. These objectives are particularly scrutinized half way during the course when a formative evaluation of the course is completed.

Classes conducted in this manner are powerful. They are learner-educator centred. Co-initiating and co-learning are always happening. Learning to come to consensus about direction and issues is a natural part

of the process. The experience at once supports direction and order and instability, change, and discovery.

**Why Did the Group Support the Emergence of Two Male Leaders from the Group?/ Why Did the Group Create a Traditional Classroom?/ Why Did the Group Not Function in a Democratic Participatory Manner?/Why Were the Discussions Not In-depth or Exploratory in Nature?**

The review of the archetypes revealed a high proportion of dominant and auxiliary archetypes in the group that support tradition and patriarchy (3 Apollo, 5 Athena, 2 Zeus, and 2 Aphrodite, thus 12 of 18 members). The group unconsciously supported the emergence of the male leaders; the leaders did not have a particular objective set to lead. The situation was traditional and comfortable as indicated by many comments during the interviews.

The question is raised as to what extent the emergence and dependence upon the leaders facilitated and/or impeded group discussion. Knoop (1990c) suggests that leaderless groups are most effective groups. Leadership in such groups "bounces around" group members, depending on interest, expertise, ideas, energy level or any of the many other variables that influence the emergence of informal leaders" (p. 3). Many members commented both in journals and interviews that they desired to hear from group members who were silent and they also wished to hear more about the experience and expertise of the various group members, which could have occurred within a context where the leadership "bounced around."

Knoop further notes that leaderless groups require knowledge and expertise about group process in order to function. As identified earlier,

the literature supports the idea of preparing both educator and learner for group process. It is proposed that graduate studies programs would do well to prepare educators and learners to work together in groups during an initiation to graduate studies. The graduate studies class would have greatly benefited by this process. Possibly discovery in group discussions would also have benefited by understanding group process and the concept of leaderless groups.

Belenky, Clinchy, Goldberger, and Tarule (1986), discuss the emergence of voice and participation in the developmental theory of women's ways of knowing. This theory identifies basic assumptions that underlie the experience of women as they attempt to move from a position of silence to a position of confidence and participation where their voices are heard. The basic assumptions identify throughout the process of development reflect the assumptions that underlie the experience of the graduate studies class (see Appendix U). It is proposed that group development could be considered in terms of this theory and that participation may be enhanced with an understanding of development as it is described by the theory and the ways in which the theory suggests facilitating development.

The dominant archetypes in the group reflected separate knowing and connected knowing (see Appendix U). Athena, Apollo, Zeus, and Hades demonstrate separate knowing, a type of knowing that is objective. Artemis, Hestia, Hera, and Demeter reflect connected knowing, a subjective type of knowing. The theory like Bolen's theory recommends that both types of knowing, separate and connected, are necessary for constructed knowing, characteristic of constructivists.

The theory suggests that by becoming aware of one's way of knowing through identification of the underlying assumptions and changing those assumptions one can become a constructivist. Constructivists are described as passionate knowers who are challenged by conflict and contradiction, they are attentive and caring. Cooperation and collaboration are the characteristics of the groups in which constructivists participate; domination is absent. Constructivists in dialogue reflect Habermas's ideal speech act situation in action (see Appendix C).

The theory emphasizes the importance of affirming one another in the group and believing one another. It emphasizes the importance of choices in decision making and the freedom to work on one's own as well as in groups. The educator is described as a "midwife" who both confirms the person and yet evokes the uncertainty necessary for development. Thinking out loud and thus sharing the process of knowledge is advocated. Structure and diversity are both welcomed. The "knower is an intimate part of the known" (Belenkey, Clinchy, Goldberger, and Tarule, 1986, p. 137).

Upon reflecting on the experience of the graduate studies class many of the characteristics of the constructivist were present as were many characteristics of separate and connected knowers. It is proposed that if we had discussed the characteristics of the group and the underlying assumptions in terms of psychological type, archetype, and developmental theory, we could have appreciated, enhanced and celebrated our assets and openly attempted to change characteristics that inhibited participation in the group and in-depth discussions.



### **Conclusions: The Web**

Most frequently graduate studies classes focus upon the subject matter of the course being presented. Questions are such as, What is truth?, What is reality?, Who has authority?, How do we define ourselves personally and collectively? What is our view of the teaching/learning process?, What is our definition of education? are rarely addressed. Yet basic assumptions about the nature of truth, reality, and knowledge shape the way we see the world and the way we participate in the world. Identifying and reflecting on assumptions underlying these important questions reveal how we think and why we think the way we do.

Transformation theory prompted the exploration for assumptions underlying the experience of the graduate studies class. The assumptions identified provided insight about the way reality, knowledge, teaching/learning, and authority were perceived by the group. The search also revealed assumptions made within the context of the class experience that both enhance and limited participation on the group. It is proposed by identifying the assumptions underlying the experience the group may have better understood and enhanced their experience.

It is further proposed that collaboration about the results of the study throughout the class proceedings would have more accurately portrayed the meaning of the experience of the graduate studies class. The experience may have been greatly enriched by having all the voices of the class members and the diversity of the ideas represented.

Man wishes to be confirmed in his being by man, and wishes to have presence in the being of the other ... secretly and bashfully he watches for a yes which allows him to be and which can come only from one human person to another. It is from one another that the

heavenly bread of self-being is passed. (Martin Buber, *The knowledge of man: selected essays*, 1965, p. 71)

## **CHAPTER FIVE: SUMMARY AND IMPLICATIONS**

A summary of the study from chapter one through four is outlined briefly in this chapter. Concluding remarks are made about the study. Implications of the research project for future study, theory, practice, and research are suggested.

### **Summary**

This study was initiated by a search for new ways to think about adult education. The transformative dimensions of adult education as presented by Mezirow were encountered in the search and found to be compelling. The basic premises of the theory is that by identifying assumptions underlying experience one has the opportunity to discover the meaning of experience and enhance one's life.

The problem that initiated this study was the inability to identify assumptions underlying experience. This prompted an exploration of the history and development of the Western mind in search of underlying assumptions. Chapter two highlights the findings of the search. Important junctures in history and associated assumptions were identified. The first three questions of the research study were addressed in this chapter.

A collateral search for assumptions underlying the experience of members of a graduate studies class was embarked upon to correlate the search for assumptions underlying the Western mind with an authentic life experience. A qualitative methodology was chosen as the assumptions underlying the methodology closely reflected the assumptions that were being revealed as being important to understanding social systems. These are discussed in chapter three.

The assumptions influencing the experience of a graduate studies class were ultimately limited to looking at the assumptions that impeded and facilitated participation in a large group setting in the classroom experience. The context of the experience, the events of the experience, and the people involved in the experience provided the source of information for the search of underlying assumptions. The results of the findings and the discussion associated with the findings were presented in chapter four. The findings emphasized the importance of identifying assumptions that both enhance and limit experiences.

The assumptions underlying the Western tradition as presented in chapter two were reflected by the graduate studies class members. The identification of assumptions underlying the class experience affirmed and extended an understanding of the assumptions revealed in chapter two. These assumptions are considered with caution. They are considered as tentative as they require refinement, considerably more thought and discussion. The study is strictly considered a beginning attempt to identify assumptions and their consequences.

### **Concluding Remarks**

This was an exploratory study. It is research in progress. It is too early to come to conclusions about any of the questions posed for the study. Many more questions were raised by the research than answered. Research questions, the methodology used, and transformative theory are addressed in the concluding remarks.

### Research Questions

What is transformation theory about?

Why is transformation theory important today?

What are some of the assumptions influencing Western life today?

What is the experience of the graduate studies class?

What are some of the assumptions influencing the class experience?

Responses to the first three questions are tentatively sketched at the end of chapter two. The experience of the graduate studies class and the associated assumptions outlined in chapter four provide a narrow view of the actual class experience and pose a response to questions four and five. As Nussbaum (1986) points out "the particular, the class experience, remains there, inexhausted the final arbiter of the correctness of my vision (p.69)."

Designing the study to search for assumptions in Western philosophical, religious, and scientific literature and for assumptions underlying the class experience collaterally, had the specific intent of closely integrating theory and practice. The process was challenging and rewarding. The movement back and forth between the experiences raised many questions that perhaps would not have been raised otherwise. The process also limited the study insofar as extraordinary assumptions and consequences that did not fit the exploration between the literature and class experience were presumed to be missed. It was difficult to see beyond the large number of assumptions identified.

The assumptions identified were just under the surface of the experience of the review of Western history and the class experience. The assumptions defined how people thought about the universe, reality,

knowledge, and the self. The assumptions were interactive and intertwined, making it difficult to strictly categorize them according to the categories just listed.

Two types of assumptions were found to inform the assumptions discovered just under the surface of experience. The one type marked the subject-object relationship. The second type underscribed the notion of unity and diversity and the tension of opposites. These assumptions had a generic quality about them insofar as they influenced many aspects of life. They were somewhat like a molecule on a DNA strand. They at once contained a picture of the whole and yet influenced the particular. One questioned how many other such assumptions exist. The question was raised as to the possibility of the existence of other assumptions even more deeply embedded in our culture.

The need for collaboration in the identification of suppositions/presuppositions was raised. Philosophers, anthropologists, and quantum physicists consistently search for assumptions. It was deemed necessary to involve people from other disciplines for a more effective search for assumptions. Upon reflecting on the work of Paulo Freire (1985) one realized the importance of the differing disciplines being represented within the context of the cultural circles. Although a bank of assumptions was identified between chapters two and four it is considered necessary to review, refine, and develop these assumptions before they are used again in the future as they are the result of the reflections of one person as opposed to a team of people.

In conclusion, the assumptions identified underlying the Western tradition were logically identified underlying the class experience. They were complimentary. These assumptions enhanced an understanding of

the classroom experience in terms of participation in the group and in terms of the teaching learning process.

In future it would be interesting to compare the assumptions underlying another culture such as the Eastern tradition in order to punctuate sameness and difference and perhaps better understand the Western experience.

### **Methodology**

The qualitative methodology permitted the search to be exploratory and to address many differing aspects of the class experience. It also permitted the opportunity to view the experience as a work of art and participate with the experience as an educational connoisseur and critic. The nature of the methodology was complimentary to the use of the pragmatic problem-solving model. Each of these topics is pursued in this section.

### **The Exploratory Nature of the Research**

The exploratory nature of the research allowed a broad based approach to the study. Considering that the nature of assumptions and their identification were unknown at the onset of the study, the exploratory and qualitative nature of the research was necessary. This approach complimented a beginning search for assumptions and permitted seeing the interconnections between assumptions.

The approach on the one hand limited developing a deeper understanding of any of the areas in which assumptions were identified. On the other hand the study revealed areas for future research about

assumptions, namely, assumptions about reality, knowledge, the universe, and the self.

The qualitative approach provided the opportunity for the emergence of ideas that enhanced an understanding of the class experience, the application of Jungian psychology of psychological type and archetype, and the application of developmental psychology. It also permitted insight into the interconnections between transformation theory, Jungian theory, and developmental theory.

Understanding the world as an organism, an open system, in which people are "constructivists" is characteristic of all three theories:

Transformation theory provides the impetus for challenging assumptions and transforming limiting and distorted assumptions and describes the transformation process (Mezirow, 1991b, p. 168).

Transformation theory clarifies teaching/learning aims for adult learners. Ideal learning conditions are outlined. Teaching/learning goals are established that "help learners become more imaginative, intuitive, and critically reflective of assumptions ... more rational through effective participation in critical discourse ... and acquire ... perspectives that are more inclusive, integrative and discriminating, and open to alternative points of view" (Mezirow, 1991b, p. 224).

Jungian theory of psychological type and archetype leads to a theory of individuation in which one encounters one's least preferred behaviours. This theory encourages a synthesis of opposite behaviours, those one is familiar with and those one is least familiar with. The synthesis leads to a higher level of understanding and functioning. The process is a continual process and one that compliments the continual challenging of one's assumptions. This process is primarily meant for personal growth and



development. It has been applied to the growth and development of organizations and has potential for application for the growth and development of groups (Morgan, 1986).

The developmental theory by Belenky, et al., explains the process of development that could be applied personally and also to groups. It reflects assumptions that promote the notion of a creative narrative self and a synthesis of opposites that is reminiscent of Bolen's synthesis of opposites in her discussion of the characteristics of Aphrodite.

Finally, the qualitative research process conducted on one's own was found to be problematic. As indicated throughout the research the study would have been enhanced by working collaboratively with the members of the class throughout the process. The study of Western thought would have been greatly enhanced by working with people from various other disciplines.

The study was enhanced and limited by the fact that the researcher was also going through a transformative process (see Appendix V).

### **Transformative Theory**

Two problems are identified with transformation theory that are interrelated. The first problem lies in the fact that the assumptions that underlying the theory are not clearly identified. As a result the theory is not adequately interconnected with the Western tradition. The lack of understanding the assumptions leaves the theory open to ambiguity and misreading as has been demonstrated by comments made by critics in chapter two.

The theory appears to reflect the most progressive assumptions that relate to the synthesis of old and new major paradigms of thought,

Cartesian-Newtonian and Quantum mechanics. The theory includes assumptions underlying constructivism and declares these. The theory models an interdisciplinary approach that reflects an integration of the rational, aesthetic, and spiritual realms.

This study has attempted to more closely interconnect transformation theory with the Western tradition. It remains that these interconnections need to be discussed with Mezirow for clarification and enhancement.

Transformation theory does not interconnect the assumptions it defines with the Western tradition. As a result meaning of the assumptions is limited. This study has attempted to interconnect assumptions with Western thought, the assumptions that inform Western thought and their consequences. The researcher found the connection between the assumptions identified and an understanding of their location in the broader arena of the Western tradition to enhance meaning and understanding. The interconnection provided reason for either maintaining, developing, or changing assumptions. It is thought that this understanding would enhance the transformative process. The link between the assumption and the actual transformative process remains an enigma.

### **Implications of the Research: Future Study**

Future study has been well defined for the researcher as a result of the study. Future areas of study include, philosophy, Jungian psychology, developmental theory, and qualitative research.

An overview of the Western tradition was accomplished. Now it remains that a deeper study of each era be completed. The eras and people that have been identified include: the Ancients, particularly the

assumptions underlying Socrates', Plato's, and Aristotle's thought; the Medieval Era, concentrating on the growth and development of scholarship during this phase; the Modern Era, placing emphasis on the work of Descartes, Kant, the Romantics, and Marx; the Postmodern Era, concentrating on the subject of discourse and discourse ethics as currently being developed by Habermas, Benhabib, and the feminists.

Jungian psychology will be pursued in terms of archetypes and the theory of individuation. Bolen's complimentary work will be included in the process. In addition, the myths of Greece will be studied in much more detail. It is proposed that detailed connections be made between Jung's, Bolen's, and Frye's use of mythology and archetypes.

Further study is warranted in the area of developmental psychology as presented by Belenky et al. It is thought that the study of practical discourse in groups would benefit by a better understanding of developmental theory, discourse ethics, and Jungian theory.

In the area of qualitative research it is proposed to pursue and refine the idea of educational connoisseurship and critique. It is also proposed to refine the use of the pragmatic problem solving-model within the context of qualitative research.

### **Implications of the Research: Theory**

The development of transformation theory entails dialogue with Mezirow and people from other disciplines. It is proposed that the assumptions underlying the theory be established. Secondly, the assumptions identified need to be refined and developed. Thirdly, it is proposed that the link between assumptions and the transformation process be addressed.

### **Implications of the Research: Practice**

At this stage it is premature to make specific proposals for educational practice. It is suggested that the areas of group dynamics/process require development. It is proposed that educators and learners would benefit by understanding group process. It is proposed that educators and learners would benefit by identifying the assumptions that underlie their experience. It is also proposed that a new definition of adult education be developed, a draft of such a statement is included in chapter four.

### **Implication of the Research: Future Research**

Future research has been implied by the forgoing discussions outlining implications for study, theory, and practice. These implications include further studies of graduate class experiences with a focus on practical discourse, a refinement of the connections between Jungian psychological type theory and Bolen's approach to archetypes, group development being studied from the vantage point of Belenky, et al.'s theory, Jungian theory, and transformations theory.

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## APPENDIX A

### Philosophical Schools of Thought: An Overview

# Philosophical Schools of Thought: An Overview

PHILOSOPHY	IDEALISM	REALISM	EASTERN	PRAGMATISM	RECONSTRUCTIONISM	BEHAVIOURISM	EXISTENTIALISM	ANALYTIC	MARXISM	
OVERVIEW	oldest systematic philosophy in Western culture Ideas - only true reality Material world changes therefore it is uncertain	one of the oldest philosophies in Western culture reality, knowledge and value exist independently of the mind	concentration on inner life intuition, inner peace tranquility, attitudinal development, mysticism, religion and philosophy closely intertwined	examine traditional ways, reconstruct where possible to bring into line with today's needs	advocate radical change to make life better than it was or is, is concerned with broad social and cultural conditions	control based on the principles of a technology of behaviour "behavioural engineering" has roots in realism and materialism	how is the nature of knowledge, truth, and meaning, significant within the lived experience of individuals	seek to clarify language, concepts, and methods we use in the more precise activities of life, such as the sciences strong resemblance to realism	early works were humanitarian later communist and revolutionary	
PHILOSOPHERS	Platonic Idealism Socrates (469-399) Plato (427-347) search for absolute truth knowledge discovered by man through contemplating ideas Religious Idealism Augustine (354-430) struggled to be released from the world of man to enter the world of God Modern Idealism René Descartes (1596-1650) I think, therefore I am George Berkeley (1685-1753) things are totally dependent on a perceiving mind Immanuel Kant (1724-1804) systematic thought Georg Hegel (1770-1831) logic would arrive at Absolute idea	Aristotelian Realism Aristotle (384-322) united matter and form knowledge gained by logic through study of matter balance and order important Religious Realism Thomas Aquinas (1225-1274) all truth is in God and gained by revelation and deductive reasoning, senses important Modern Realism Francis Bacon (1561-1626) scientific/inductive approach John Locke (1632-1704) ideas are derived from experience by sensation+reflection Contemporary Realism Alfred Whitehead (1861-1947) reality is process-patterns Bertrand Russell (1872-1970) Science is basic to knowledge	Indian Hinduism (1200- B.C.-A.D.200) control and regulate life, 3 basic texts Vedas-worship of nature, human beings are divine Upanishads-merge self (Atman) with the supreme (Brahman) Epics-Ramayana+ Mahabharata (Bhagavad-Gita) the only reality is Spirit, devotion to duty, emphasis on caste Buddhism Siddhartha Gotama (563-483 B.C.) renounce desire - happiness will ensue Jain Mahavir (540-410B.C.) human is spiritual and material, spirit controls material both Buddhism and Jain reject Hinduism Chinese Confucianism (551-479 BC) never meant to be a religion, emphasis is here and now and service to humanity	Chinese Taoism Lao-tzu (circa 5th century BC) nonaction, let things take their course naturally Japanese Zen Buddhism Buddhism entered Japan AD 552, Bodhidharma (Daruma) founded Zen Buddhism no faith, no God, but dependence on self especially intuition, wholeness responding to wholeness, an unconditional union with all that is Middle East - Judaism Abraham (circa 1750BC) belief in one God who created the earth, one universe, and cares for it and all creatures Christianity Jesus (0-30 AD) Jesus is divine, the Messiah, humans are sinners and require redemption, soul is immortal, life in the hereafter Islam Mohammed (571-632 AD) worship and follow Allah one God, life in the hereafter Allah will judge all souls	Induction Francis Bacon (1561-1626) induction allows experimental approach to world Centrality of Experience John Locke (1632-1704) ideas are not innate they come from experience Jean-Jacque Rousseau (1712-1778) connected nature and experience Science and Society Auguste Comte (1798-1857) used science to solve social problems, father of sociology Charles Darwin (1809-1882) Reality found in becoming American Pragmatists Charles Peirce (1839-1914) verify ideas by experience William James (1842-1910) truth is inseparable from experience, study experience John Dewey (1859-1952) experience itself is of nature	George Counts (1889-1974) education must be used to establish new cultural patterns and eliminate social evils Theodore Brameld (1904-1987) world unity where all would join together in the common purpose of a peaceful world seen educator as a primary change agent Other change agents: Ralph Nader - consumer protection Lewis Mumford, Alvin Toffler - individuality + "hot relationships", Paul George - "hot relationships", Theorem Z, Ivan Illich - deschooling societies, Herbert Kohl, Kenneth Clark, Paul Goodman, A.S. Neill, Neil Postman, Christopher Jencks, Paulo Freire These people view all our actions in a moral context, for everything we do has consequences for the future	Materialism Thomas Hobbes (1588-1679) reality can be explained by laws of matter and motion body matter, behaviour, motion Early Behaviourists Ivan Pavlov (1849-1936) father of conditioning theory John Watson (1878-1958) there is nothing within to develop, engineer people into what you want them to be B.F. Skinner (1904-1990) high priest of behaviourism sees behaviourism extending into politics, economics, and other social organizations	Existentialists Søren Kierkegaard (1813-1855) thru the "leap of faith" one can restructure one's life and live out principles of Christianity, concerned with individual human existence Martin Heidegger (1889-1965) friendship is the epitome of the I-Thou relationship mutual respect and dignity Martin Heidegger (1889-1976) individual existence being in the world, interpreting being-constructing personal world of meaning Jean-Paul Sartre (1905-1980) being-for-itself, being-in-itself consciousness deals with meaning of things, not raw objectivity phenomenology Edmund Husserl (1859-1938) studied the original intuition Maurice Merleau-Ponty primacy of perception creation: that is, one can create ideas relevant to one's own needs and interests emphasizes the individual enable learner to become attentive, perceptive, wide-awake to possibilities	to clarify language, concepts, and methods we use in the more precise activities of life, such as the sciences strong resemblance to realism  George Moore (1873-1958) common sense and ordinary language Bertrand Russell (1871-1970) formal logical analysis akin to the exact sciences, mathematics gives clarity and logic Logical Positivism Ludwig Wittgenstein (1889-1951) philosophy should primarily clarify concepts not produce propositions natural sciences should Alfred Ayer (1910-1989) reveal criteria that are used to show whether a proposition is true or false Gilbert Ryle (1900-1976) find sources of linguistic confusion, best work The Concept of Mind	Karl Marx (1818-1883) influenced by Hegel's concept of alienation and the process of the dialectic version of history, but changed from an idealistic to a materialistic base and the dialectic between ideas to between economic conditions and human action collaboration with Engels tended to change Marx from the humanist to the revolutionary, communist and subsequently Lenin a man of theory and action interpreted Marx to mean that violent revolution was necessary to overthrow bourgeois forms of state following the Russian Revolution upon Lenin's ideas, the need for a dictatorship controlled by a small disciplined party apparatus led to the establishment of the Communist Party
AIMS OF EDUCATION	The search for truth mind over matter gained by reasoning+intuition Self realization subjective vs. objective self at the centre - with meaning only in context of society Character development potential for growth both morally and cognitively favour holistic learning earliest method-dialectic the teacher is to be emulated stimulate thought by diverse methods - projects, artwork, question and discussion stress self activity in education stimulate continued learning	Scholastic excellence back to the basics that are essential, practical and scientific in nature Character Development science provides moral and intellectual development by demanding integrity, self-sacrifice and courage	achieve wisdom, maintain family structure, establish law, provide for social and economic concerns, all needed for life and the life hereafter	helps us meet environmental changes, affects our character, helps us become the kind of moral person who promotes our own growth and the growth of others education is life itself	to involve people more as change-agents, to change themselves and the world, world community, brotherhood, democracy	systematic, meaningful conditioning change behaviour and point it in a more desirable direction	to become aware of language and its potential clarify what education proposes to do through philosophical analysis	to mold a socialist consciousness and a socialist society		
METHODS	support formal teaching eg. lecture method, performance based teaching competency, accountability role of teacher important systematic, organized presentations	emphasis on oral tradition and reading of sacred literature teacher is in a position of prominence	there is no one way to educate use a variety of ways, including settings and situations from inside school to wider community	critical of current methods as they reinforce traditional values and attitudes encourage critical, analytical, active, discriminating activities, and democratic procedures	specify desired outcome shape it with reinforcers slacken reinforcers when desired outcome is established evaluate cognitive theory is a type of behaviourism even though it emphasizes the inner person	freedom to do what they want not filled-with, measured against, fitted into end manipulation, we are both the student and the teacher gain command of language and communication how do I conceive the other	does not tend to prescribe what goes on but are interested in examining curriculum from the standpoint of materials methods, policies, procedures some advise constructing models of logic, others look at functional-moral, political etc.	distorted education provided by the bourgeois state physical science and grammar only necessary subjects advocate technical and industrial education favoured school inspectors enforcing general school laws		
CURRICULUM	teach students to think develop conceptual ability explore ideas, develop creative and reflective thinking stress classical studies arts and sciences are studied	subjects should be practical and useful appeals to both mental and physical development standard, measurable curriculum	believe in diversified curriculum, advocate problem-centered learning, core curriculum project method, problems approach	encourage getting into society both to learn and apply learning, "the wheel curriculum", "world curriculum", multi-cultural education	the student-in-situation making a choice is the deciding factor unite student's originality with organized curriculum so that originality gains power and direction	concern goes beyond the idea of plugging subjects into a curriculum to meanings and assumptions made about knowledge, forms of knowledge and their interrelations	Strengths provides a view of social transformation and promotes a view of purposeful human transaction to carry out that transformation vision of collective destiny appeals to the oppressed Issues must be driven, I demonstrate its theoretical ideals rigid curriculum, diverge for intellectual freedom			
CRITIQUE	Strengths - cognitive, moral character development, cultural preservation, self-realization, human, personal side, systematic, holistic approach Issues - absolute ideas hinder science and new idea creation, does not develop the affective and physical side of human nature, intellectual elitism, conformity	Strengths - training of professionals and technicians to respond to the industrial and technological age specialization Issues - totality of the individual that is ignored, dehumanizing, elitism, indisputable facts, testing, pygmalion effect discipline is good for us,	encourages westerners to question commitment to science, materialism, nature religion, education, progress appeals to west as more romantic than real interpretation is a problem splinter and factions danger of dogmatism being eroded by the west	Issues did America shape pragmatism or did it shape America rejection of "isms" interpretation of Dewey Strengths great influence in the 20th century not only in education but law, art, economics, psychology, religion	Strengths provokes thinking about critical issues provide visions of a more perfect world Issues lack future goals, short or long term their impatience and precipitousness could benefit from Dewey's careful, experimental approach with an ever watchful eye on consequences	Strengths can point to measurable success it is scientific it is optimistic Issues belittles and limits humanity questionable assumptions about human beings mechanistic planning social policy recommendations	Strengths calls for reexamination of our culture presents a sobering but not hopeless note Issues some have adopted freedom and forgotten responsibility phenomenological terminology can create comprehension problems			

Janice E. Clark, 1991

Reference: Ozman, H. A., Craver, S. M. (1990). Foundations of Education (4th ed.). Columbus: Merrill.

**APPENDIX B**

**Quantum Mechanics Theory: Notes**

### Quantum Mechanics Theory: Notes

In a few broad brush strokes some new discoveries in science are outlined that profoundly challenge Baconian, Cartesian, Newtonian thinking.

#### Existing Rules are Challenged

"Failure of existing rules is the prelude to a search for new ones....crises are a necessary precondition for the emergence of novel theories..." (Kuhn, 1962, p. 68 and p.77).

In the last two decades of the nineteenth century Michael Faraday and Clerk Maxwell discovered an "electric and magnetic phenomena that involved a new type of force that could not be described appropriately by the mechanistic model" (Capra, 1982, p. 70). The "concept of a force" was replaced by the "concept of a force field". The fundamental entity of the new theory was a "field". The developments in science in the nineteenth century began to erode the fundamental concepts of Newtonian theory.

#### A Revolution in Science

"Revolutions in science, it appears, may reflect the lifework of one remarkable individual, or the coming together of several threads which, at a particular time, lead to a completely new synthesis" (Weatherall, 1992, p.1).

Max Planck, Albert Einstein, Niels Bohr, Louis De Broglie, Erwin Schrodinger, Wolfgang Pauli, Werner Heisenberg and Paul Dirac, an international group of physicists, explored the atomic and subatomic world. They uncovered the mathematical formulations of Quantum Theory or Quantum Mechanics.

This discovery, stimulated by the extraordinary work of Albert Einstein at the turn of the century, was formulated over the first three decades of the twentieth century. Capra describes this period as "one of the most exciting periods of modern science, one that saw not only brilliant intellectual exchanges but also dramatic human conflicts, as well as deep personal friendships, among the scientists" (1982, p. 77).

#### Radical Change: The Emotional and Existential Response

Each time these scientists "asked nature a question" they were answered with "a paradox" (p. 76). As they struggled with their findings they realized their "meaning perspective" or "conceptual framework" was inadequate. Their assumptions, language, their whole way of knowing, of thinking were unsuitable.

The scientists initially experienced a sense of disbelief, despair about their strange and unexpected findings. Heisenberg vividly described this (p.76)

I remember discussions with Bohr which went through many hours till very late at night and ended in almost despair; and when at the end of the discussions I went alone for a walk in the neighbouring park I repeated to myself again and again the question: Can nature possibly be so absurd as it seems to us in these atomic experiments?

Einstein wrote, "It was as if the ground had been pulled out from under one, with no firm foundation to be seen anywhere, upon which one could have built" (Kuhn, 1962, p. 83).

Pauli in a letter to a friend wrote, "At the moment physics is again terribly confused. In any case, it is too difficult for me, and I wish I had been a movie comedian or something of the sort and had never heard of physics (p.84)". Five months later he wrote, "Heisenberg's type of mechanics has again given me hope and joy in life. To be sure it does not supply the solution to the riddle, but I believe it is again possible to march forward (p.84).

#### The Transformation Process

Crises begin with a sense of blurring of our usual framework or way of thinking. The rules, logical connections, and conclusions that worked in the past just do not fit the current situation.

Kuhn describes three possible responses to the situation: the problem may ultimately be accommodated by the current way of thinking; the problem is recognized but resists the variety of new approaches and no solution is found, it is labelled and set aside; or, a new framework for thinking emerges. The emergence of a new framework or paradigm spells "an ensuing battle over its acceptance" (p. 84).

Kuhn is emphatic about the fact that the new paradigm does not emerge from the old one. The new paradigm "is a reconstruction of the field from new fundamentals, a reconstruction that

changes some of the field's most elementary theoretical generalizations...methods...procedures" (p.85).

### A New World View

Emerging from the revolutionary change in physics is a new world view. The protagonists of this view from the physics community include, Erwin Schrodinger, Niels Bohr, Werner Heisenberg, Max Born and others (Schrodinger 1989, p. 134). These are joined by many new voices, which include, Fritz Capra (1982, 1991), Stephen Hawking (1988), Richard Healey (1990), Danah Zohar (1990).

This new world is characterized by "words like organic, holistic, and ecological" (Capra, 1982, p. 78). The picture of the world painted as a machine made up of parts, "objects" is changing. The world is now much more like a mosaic created as "one indivisible, dynamic whole whose parts are essentially interrelated and can be understood only as patterns of a cosmic process (p.78)".

### Quantum Theory: Points to Ponder

A consideration of some of the results of the experimental investigation of the atomic and subatomic world reveals why the world is now viewed as a dynamic whole.

### The Dual Aspect of Nature

Quantum theory revealed that atoms were made up of vast expanses of space with electrons moving around neutrons. And the subatomic world is made up of "abstract entities which have a dual aspect" (p.78).

Einstein first recognized this dual aspect when he was studying light particles which he called "quanta" from whence comes the term "quantum" theory (p.78). This dual nature is seen in both light and matter.

The dual nature of the subatomic unit is paradoxical. It is at once "particles confined to a small volume" and "wave forms spreading over huge expanses of space" (p.79). Zohar refers to these as "wave packets" (Zohar, 1990, p. 26).

The significance of understanding this complexity, in Capra's terms, is as follows, "The properties it shows-particle-like or wave-like-will depend on the experimental situation, that is, on the apparatus it is forced to interact with" (Capra, p.79). The particle or wave does not have basic characteristics that are separate from its context.

Out of this aspect of duality arise two concepts, the "uncertainty principle" as described by Werner Heisenberg and the "notion of complementarity" introduced by Niels Bohr (p.79).

### The Uncertainty Principle

Through a set of mathematical principles, underlying the uncertainty principle, Heisenberg demonstrated the limitations of experimentation and subsequently the limitations of human imagination.

First, we have realized through understanding atomic phenomena that particles are not hard, solid pieces of matter. They have a dual aspect. They are particles and waves that interact. This concept of duality is also applicable to terms like position and velocity, which have a dual aspect.

Secondly, we have realized that the properties that we see when we do an experiment depend on the apparatus and/or procedures we use, they depend upon us. In one event we see a wave form and describe it, in the other a particle and describe it.

The uncertainty principle simply stated is, "The more we emphasize one aspect of our description the more the other aspect becomes uncertain" (p.79).

Niels Bohr and Heisenberg argue from this principle that reality is indeterminate. Reality is a matter of probability (Zohar, 1990, p. 28).

### The Notion of Complementarity

Niels Bohr has attempted to explain the dual aspect of the atomic phenomena by introducing the notion of complementarity (Capra, p.79).

Bohr sees the particle description and the wave description to be complementary aspects of the same reality. Each are only partly correct. Both descriptions are needed and are limited by the conditions set by the uncertainty principle.



### The Copenhagen Interpretation

The explanation of the principle of uncertainty and the notion of complementarity are referred to as the Copenhagen Interpretation of quantum mechanics.

Sir Rudolf Peierls, a physicist, objects to the use of this term "Copenhagen Interpretation". He asserts it implies that there are several interpretations of quantum mechanics and emphasizes that there is only one way of understanding quantum mechanics. He further stresses that physicists do not tend to use the term but rather it is used by philosophers (Healey, 1990, p.2).

Healey, a philosopher, suggests that there is a growing minority of people objecting to the explanation. Rival theories include "naive realism, the Everett, or many-worlds, interpretation, and the quantum logical interpretation" (p.3). At the same time, he writes, "I am a philosopher, and I shall sometimes find it convenient to talk about the Copenhagen Interpretation of quantum mechanics (p. 2)

It is beyond the scope of these notes and my current understanding of quantum mechanics to argue for or against explanations of quantum mechanics. It is rather my purpose to demonstrate that there is a radical change in thinking about the world that is finally, after seventy years, beginning to permeate our everyday lives and theories.

## APPENDIX C

### Jurgen Habermas: A Synopsis

### Jurgen Habermas: A Synopsis

Bernstein identified an "essential clue" to unravelling the problems of the Enlightenment in the very concept "cherished by the Enlightenment - "Reason itself" (Bernstein 1992, p. 38). It is the theme of Reason within the concept of Jurgen Habermas's theory that I would like to explore further.

Jurgen Habermas also identifies the "essential clue" to unravelling the Enlightenment problems in the concept of "Reason". The purpose for enlarging the discussion as Habermas unveils it is threefold. First, it is meant to deepen an understanding of issues and assumptions arising during the age of the Enlightenment. Secondly, Habermas's critical theory holds an important position in the transformation theory constellation and a consideration of the theory will perhaps increase an understanding of transformation theory and its assumptions. Finally, it is used as an example to highlight the linkages between the assumptions underlying a theory and the major paradigm assumptions and why this is important.

### Jurgen Habermas's Critical Theory

Habermas traces the root of the problem of Reason back to the beginning of Western Philosophy.

A consideration of "the concept of theory that has defined the tradition of great philosophy since its beginnings" (Habermas, 1972, p. 301), highlights a problem Habermas identifies with the notions of pure reason and objectivity.

Through a consideration of the same concept of theory Habermas identifies the notion of Emancipation which he incorporates into his theory. Following Aristotle's divisions of human knowledge and reasoning Habermas develops a theory of communicative action and rationality that holds potential for contributing to the achievement of the goals of the Enlightenment.

Habermas's critical theory will be briefly traced from the "concept of theory" through to his "theory of communicative action".

### The Concept of Theory

The concept of theory dates back to Pythagoras circa 400 B.C. (Guthrie, 1962, p. 173). For Pythagoras the concept of theory or *theoria* was the active contemplation of the *kosmos*. This meant actively thinking about and reflecting upon the divine and on the beauty and order of the universe.

The goal of contemplation was to free man from his passions and desires. Hence the philosopher who reflects on the *kosmos* becomes divine and orderly "in so far as a man may" Plato implies (p.210). As a result, theory is integrated or assimilated into the philosopher's character and his conduct or moral behaviour changes and reflects that of the divine and the universe. His "ethos" becomes that of the divine and beauty and order of the universe.

### Habermas's Conclusions about the Concept of Theory

#### Pure Reason

The concept of theory implies that there are two realities, a pure reality that is unchanging, universal, and eternal and a reality that is human and thus fallible, contingent, and changing.

Habermas maintains that human contemplation of either reality cannot possibly be objective. He claims that human beings always have some motive or interest that prevents them from being purely objective, thus they cannot achieve pure reason. He concludes that pure reason and objectivity are an illusion, since there is no such thing as value-freedom (Habermas, 1972).

#### Emancipation

Habermas is captured by the idea that the Ancient Greeks attempted to free themselves from their passions and desires through the contemplation of the *kosmos*. He wishes to redeem this notion of self-reflection and the subsequent freeing or emancipation of one's self from distorted perceptions and coercion.

### The Ethos of Positivism

Habermas further criticizes the ethos of positivism. He objects to the idea of empirical-analytical science claiming to be the only source of positive science. He also criticizes both the empirical-analytic and historical-hermeneutic sciences for claiming value-freedom or neutrality.

### Aristotle's Knowledge - Guiding Interests

Human knowledge in Aristotle's time was divided into three different disciplines or sciences, "the theoretical, the practical, and the productive" (Thomson, 1953, p. 17). Each sphere of knowledge guided human behaviour and action differently.

The theoretical, theology, mathematics, and physics provided wisdom about the "unchangeable and the eternal" and "established the general picture of human nature that was composed of the rational and nonrational" (McCarthy, 1978, p. 2).

Practical knowledge, ethics and politics addressed the "sphere of human action. Prone to be, "practical wisdom which is general moral knowledge" (Chen, 1987, p. 184) guides human action. Praxis is "practical reasoning and practical wisdom united in action (p.185)."

Productive knowledge technical skill, craftsmanship and artistry, produced "useful or beautiful artifacts" (McCarthy, 1978, p.3).

### Habermas's Theory of Knowledge-Guiding Interests

Based on the work of Hans-Georg Gadamer, the German philosopher, and his revival of Aristotle's classification of knowledge, Habermas developed his theory of knowledge-guiding interests.

Habermas also envisions knowledge being divided into three areas of human interests, the emancipatory, the practical, and the technical. Each area has its own form of rationality, self-reflection, communicative rationality, and instrumental rationality respectively. Each has its own social media through which it expresses itself, power, language, work. Each has its own sciences that supports its development, critical sciences, hermeneutics or interpretive sciences, and empirical/analytic or natural sciences. These are summarized in Table 1.1.

Table 1.1 Knowledge - Guiding Interests

Aristotle	Habermas	Knowledge	Domain	Science
Theoretical	Emancipatory	Self-Knowledge (reflection)	Power	Critical
Practical	Practical	Communicative (understanding)	Language Interaction	Hermeneutics/ Interpretive
Productive	Technical	Instrumental (causal explanation)	Work	Natural

Source: Adapted from Ewert, 1991, p.345

### Habermas's Theory of Communicative Action

Instrumental rationality has risen throughout the age of the Enlightenment. It has relentlessly spread to control literally every facet of "modern culture and society - including science, morality, law, politics, economics, administration, bureaucracy, even the arts" (Bernstein, 1992, p. 40).

Instrumental rationality has jeopardized the achievement of the goals of the Enlightenment, "autonomy, freedom, justice, equality, happiness and peace (p.33). It has contributed to the problems of "domination, oppression, repression, patriarchy, sterility, violence, totality, totalitarianism, and even terror" (p.32).

Habermas joins the "rage against reason" (p.31). He seeks as a Modern philosopher to "break with the past" (Silverman, 1990, p.2). He seeks to actively address the "uncertainties, despair, bureaucratization, and mechanism" (p.3) plaguing our generation (McCarthy, 1984, 1987).

Habermas moves away from a philosophy of the subject which emphasizes "assumptions

about the fundamentality of the subjective ego and solitary consciousness" (Filson, 1990, p. 155). He moves to a "philosophy of language and of intersubjectivity" (155).

Habermas's theory of communicative action reestablishes a place for the practical and emancipatory domains of reason. A goal of the theory of communicative action is the individual's achievement of "autonomy and solidarity" within the community.

Habermas's philosophy is a hopeful philosophy. It is one that outlines the goals of autonomy, freedom, justice, equality, happiness, and peace as being achievable.

### **The Broad Goals of Communicative Action Theory**

Communicative action theory is a revolutionary and an ambitious theory. Habermas sees the challenge of the age is to bring together "the method and approach of the natural sciences, the empirical-analytic, with the method and approach of the interpretive (historical-hermeneutic) sciences (p.159)". He further sees the necessity to include philosophy in the approach. "Philosophy must help to mediate since philosophy can enter into the sometimes necessary speculative work....Philosophy can also engage in the immanent critique of scientific traditions or research programs and their core concepts" (p.159).

The concepts of this new paradigm of scientific research are "human agency, rationality, and action" (p.158).

### **The Process and Structure of Communicative Action Theory**

Habermas begins the theory of communicative action with an explanation of the process of rationality. He proceeds with a description and discussion the structures of the lifeworld and systems theory.

I will first highlight some aspects of the process of rationality or process of knowledge that guide communicative action and that are adapted by transformation theory. A brief discussion of the lifeworld/system theory follows.

### **The Process of Rationality**

Habermas recognizes the different interests, needs, rationalities, and sciences that support each of the three knowledge-guiding interests, the emancipatory, the practical, and the technical.

Habermas emphasizes, in addition, to these differences, the universality of communicative rationality. The rationality of each of the three areas involves written or spoken dialogue or communication with other people that aims "for an understanding about the meaning of the common experience" (Mezirow, 1990b, p. 65).

A distinction is made between "critique and discourse (Ewert, 1991, p. 360)". "Critique does not presuppose the possibility of agreement or of a constraint-free communication...discourse presupposes that rational agreement could be reached in a communicative context that is free from internal and external constraints" (p. 360).

It is discourse that Habermas focuses on primarily in the theory of communicative action. Transformation theory incorporates the logic of communicative rationality within the context of intentional learning (Mezirow, 1990b, p. 64). Transformation theory emphasizes two aspects of communicative rationality, validity testing and argumentation each of which will be discussed next.

### **Validity Testing**

Habermas assumes it is possible to arrive at a conclusion or understanding with a person we are communicating with because there is a "core of basic attitudes, a tacit consensus about norms and values and fundamental rules" (p.65) or assumptions that we understand together.

Consensus is brought about by the identification of three validity claims: "truth of the propositional component (assertion), the correctness or appropriateness of the performative aspect (procedure), and the truthfulness or authenticity of the speaking subject" (Benhabib, 1986, p. 284) (my emphasis in brackets).

### **Argumentation**

The aim of discourse is to achieve consensus on controversial issues. Habermas introduces the "ideal speech situation" to facilitate consensus.

Benhabib divides the four conditions of the ideal speech situation into two sections. The first describe the "symmetry condition" (p. 285). The second describes the "reciprocity condition" (p.285). The conditions are as follows (p.285):

#### Symmetry Condition

- first, each participant must have an equal chance to initiate and to continue communication
- second, each must have an equal chance to make assertions, recommendations, and explanations, and to challenge justifications.

#### Reciprocity Condition

- third, all must have equal chances as actors to express their wishes, feelings, and intentions
- fourth, the speakers must act as if in contexts of action there is an equal distribution of chances "to order and resist orders, to promise and to refuse, to be accountable for one's conduct and to demand accountability from others"

Habermas links communicative action to learning. Through argumentation we learn and we also develop knowledge. Since validity claims can be "criticized rationally" (Mezirow, 1990b, p. 68) mistakes are identified that we can learn by.

Mezirow adapts the validity claims and ideal speech - act situation conditions to establish what he calls the "ideal learning conditions" (1990b, p. 77, 78, and 198).

### Lifeworld/System Theory

Habermas views society from two different perspectives. One is from the internal, interpretive view of the participant in the lifeworld. The other is from the external, objective view of an observer of the system of actions.

In the first case, the lifeworld, social action is explained "via a reconstruction of its meaning as grasped by the social actors. In the second case, system, "the consequences of social action proceed behind the back of the individuals" (Benhabib, 1986, p. 231).

#### Lifeworld

"The concept of the lifeworld is complementary to communicative action" (Benhabib, 1986, p. 239). The lifeworld is reproduced through communicative action. The lifeworld is made up of three structural components, culture, society, and personality. They are "the domain(s) of cultural reproduction, social integration, and socialization" (p.238), respectively.

The lifeworld is our everyday world influenced by the assumptions, norms, rules, roles, we take for granted. This is the practical everyday world in which language plays an important part.

The ideal rationalized lifeworld is one in which the conditions of the ideal speech are practiced, and consensus is achieved through argumentation that is supported by the validity claims. It is the one in which assumptions are made explicit, challenged, and transformed when they are found to be distorted, inadequate, false, or limited.

#### System

To address the problems of loss of meaning and identity, loss of freedom and the alienation experienced in modern times, Habermas "turns to systems theory as a resource for comprehending other ways in which modern life is structured (White, p.103). In this way he looks at society "objectively" as an object that can be scientifically analyzed.

Within the context of systems theory Habermas focuses on "two subsystems, two media, and four key roles" (p. 108). The two subsystems are the economic and "political or public administrative systems" (Filson, 1990, p. 174). The two media are money and power. The four key roles are employee, consumer, client, and citizen. He further subdivides employee and consumer into the "private sphere" and client and citizen into the "public sphere". (White, 1989, p. 108; Holub, 1991; Burger, 1992)

The human subject in this objective system becomes "merely employee, consumer, client, and voter. The individual subject becomes a "functional element in an objective system" (Filson, 1990, p.176)" A functional rationality over shadows a communicative rationality.

There is no need in this world to achieve "mutual understanding because relationships are adjusted via money and power exchanges, oftentimes through the agents of expertise. This is the colonization of the lifeworld" (p.176).

In this world there is an increasing reliance on the knowledge, expertise and dictate of the "expert". Habermas refers to this as "cultural impoverishment" and describes this as "the elitist splitting of expert cultures from the context of everyday practice". (cited by White, 1988, p. 116 and Filson, 1990, p. 176).

The economic and political structures operate "without the voices of rationality from the lifeworld" (p. 179). In turn the lifeworld is "undermined and eroded" by the economic and political

systems. Habermas argues that as expert cultures grow the "everyday consciousness is robbed of its synthesizing power and becomes fragmented" (White, 1988, p. 117). The more fragmented our consciousness becomes the less able we are to identify assumptions and critique the ideologies that control our lives.

### Critique of Habermas's Theory

Habermas, in the most creative and challenging way, has articulated a critical theory that addresses the crises and problems experienced in late-twentieth century capitalist societies. His work brings together a wide range of theories from the fields of philosophy, sociology, and linguistics in an impressive way. The theory of communicative action "has been widely hailed as a major contribution to contemporary social theory" (Mezrow, 1990b, p. 65) Habermas and the Age of the Enlightenment

Habermas's comprehensive theory addresses major issues that have arisen throughout the Enlightenment Age.

The "ethos" of domination that began with the control and domination of nature and "inexorably turns into the domination of men over men (and indeed men over women)" (Bernstein, 1991, p. 42) stands the chance of being identified, exposed, challenged and transformed through the rationality of communicative action.

The rise of science and technology and instrumental rationality is recognized as "part of the whole" and not the dominant force in the arena of reason.

Habermas addresses the control of our everyday lives by bureaucratic organizations and expert communities that have proliferated with the growth of science, technology and industry, as Max Weber (1864-1920) prophesied they would (Schon, 1983, p.327).

The confusion and fusion of the "is" and the "ought" is untied in the theory of knowledge-guiding interests and theory of communicative action. There is a possibility that we can answer the paradox of the Enlightenment that calls for an ethical response.

The "ethos" of positivism that masqueraded as a science is directly exposed as Habermas joins other critiques in identifying the unquestioned presuppositions of positivism.

### Habermas and Education

A central goal of critical theory is to reunite theory and practice. This goal is being achieved as educators integrate critical theory into their practice of education and seek to achieve the goals of enlightenment and emancipation.

Gerry Ewert provides a comprehensive overview of the widespread and growing influence of Habermas in education in the "Review of Education Research," (1991). Mezrow (1990b, p. 65) writes of Habermas's theory of communicative action, "It also suggests a new foundation for understanding adult learning and the function and goals of adult education".

### Habermas's Critics

Habermas's basic claim of the primacy of communicative action and his philosophy of language is challenged. The questions tend to fall into three different categories, one that questions the foundational issues, another that address scientific issues, and finally another arising specifically from postmodern thinkers.

### Foundational Questions

Benhabib (1986) outlines some of the problems and questions surrounding the speech-act. Questions are raised around the "meaning" and "criterion" of truth (p.286). The possibility of a procedure for identifying truth is raised along with a corollary question, "If the procedure is misapplied what happens to the "ideal" of truth?".

The response to these questions raises a series of discussions about "a cognitive ethics of language" (p.287), "a communicative ethics," and "a procedural ethics". These are listed for future research and not for further discussion at this time.

A problem is raised between communicative action and strategic action. The difference stated is that the first is designed to "bring about understanding" and the latter "to produce an effect" (Rasmussen, 1989, p. 39). This inference being that there are not inevitable values implied by linguistic

communication that Habermas presupposes there is. This ultimately raises a problem in trying to "correlate the project of modernity with the philosophy of language, another problem for future research and understanding.

Mezrow sites the major barriers to "establishing consensual validity of an assertion through dialogue" as being "imperfect knowledge and distorted insight" (1984, p. 147). He further suggests that these problems are often rooted in assumptions that result from "dependency - producing ideologies" or "psychological assumptions about one's self and relationships," "a form of false consciousness" (p.147).

### Scientific Questions

Thomas McCarthy criticises Habermas for holding on to the system theory concept. In a chapter he contributed to Honneth's edited works (1991) he writes, "We do not need the paraphernalia of social systems to identify unintended consequences" (p. 139). He also suggests that systems theory undermines the utopian aspect of critical theory. He compares systems theory to classical mechanics and implies that it objectifies people, objects, and events. He also does not see that systems theory, which was developed to understand biological systems, is appropriate for analyzing social systems. Considering Prigogine's theory of dissipative structures (1980) I would disagree with McCarthy. He criticizes Habermas for maintaining the systems theory approach in order to permit a scientific analysis of society. McCarthy sees Habermas being seduced by science in the same manner in which Habermas saw Marx being seduced by science. McCarthy writes, "The question I wanted to pose here is whether in flirting with systems theory he does not run the danger of being seduced by the same illusion in more modern dress" (p.139).

Dieter Misgeld suggests that the "distinction between 'lifeworld' and 'system'" is misleading because "it detracts from the practical point of the theory and blocks reflection upon actual social situations in the relevant societies of our times" (Rasmussen, 1991, p.49). He suggests that the system should be put back into the lifeworld. He is quoted as saying, "I am suggesting...that knowledge of society in the final analysis always is knowledge gained in the lifeworld (p. 50)". He is basically asserting that the "incorporation of system theory eliminates a critical theory of society because it cuts the Gordian knot between theory and practice" (p. 49).

Axel Honneth suggests that the "distinction between system and lifeworld functions as a dualism which enables communication to be separated from power" (p.51). It is a distinction that he argues undermines a central purpose of communicative action, that of identifying and eliminating the problems of domination. He further argues in a similar fashion to Misgeld that the distinction leads to a separation of theory and practice that threatens the very notion of praxis (p51-54).

### The Postmodern Critique

Nancy Fraser effectively argues that Habermas's private/public sphere and lifeworld/system separation does not permit an adequate understanding of women's roles and problems experienced in the home, workplace, and the community (Fraser, 1989, p. 122-129).

Henry Giroux emphasizes plurality, difference, contingency, and particularity as opposed to the grand narratives of modernism that tend to be descriptive and prescriptive. He includes in his discussion Lyotard's identification of the relationship between culture, power, and the "changing conditions of knowledge embedded in the age of electronically mediated information systems that add a different dimension to the discussion of communicative action" (Giroux, 1991, p. 16-30).

Bernstein identifies some important differences in Derrida and Foucault, two postmodern thinker's concept of communication as compared to Habermas's.

Bernstein writes (1992, p. 51), "Derrida-and in a very different manner, Foucault-have shown us ...that such ideas as authentic dialogue, community, communication, and communicative rationality can potentially-and indeed have in the past-become "suffocating straitjackets," and enslaving conceptions."

Bernstein agrees with Gadamer and MacIntyre that "dialogic communication presupposes moral virtue-a certain "good will". On the other hand he also agrees with Derrida's "sensitivity and alertness" to the many ways in which this good will is "violently opposed". Derrida stresses how Western "communicative practices...silence differences...exclude outsiders, and exiles, those who live on the margins". Marginalized people who have experienced the subsequent "pain and suffering" of exclusion appreciate Derrida's writing and sensitivity and his exposure of the false "we". (p.51-52)

In further consideration of postmodern writers including Lyotard, Bernstein emphasizes the "hidden dangers" that these authors warn of. Dangers such as "false" consensus, dialogue, community are marked and underlined (p.52).

At the same time that Bernstein recognizes that the "ideal" of communicative rationality is "more often betrayed than honored,"



he urges that a "practical commitment" to communicative action and rationality is - "perhaps the only honest basis - for hope" (p. 53).

Janice E. Clark, 1993.

#### APPENDIX D

Order Out of Chaos: Prigogine and Stengers

### **Order Out of Chaos: Prigogine and Stengers**

The darkest, most unstable moments of history coupled with an integration of the rational, aesthetic, and spiritual realms have enabled human beings to transcend their situation and create in unprecedented ways. The decline of Athens coupled with the birth of philosophy and the Renaissance mark such events. Prigogine, the 1977 Nobel prize winner's research and understanding of the thermodynamics of nonequilibrium systems (Prigogine, 1980; Prigogine and Stengers, 1988) both reflects and illuminates the moments in history where order emerges from chaos.

### **Open vs. Closed Systems**

Prigogine works with "open systems" systems such as are experienced in chemistry, biology and social sciences as opposed the "closed system" of a machine. Open systems are characterized by change, disorder, instability, "nonlinear relationships (in which small inputs can trigger massive consequences), and temporality-a heightened sensitivity to the flow of time" (Prigogine and Stengers, 1988, p. xv). Closed systems are characterized by stability, uniformity, equilibrium, and "linear relationships in which small inputs...yield small outputs. (p. xiv). Prigogine argues that attempting to understand open systems within the mechanistic framework of Cartesian-Newtonian thinking is "doomed to failure" (p. xv).

### **Order Out of Chaos: The Process of Self-Organization**

Open systems are made up of subsystems that continually "fluctuate". On occasion a single fluctuation or a combination of fluctuations become "so powerful , as a result of positive feedback, that it shatters the preexisting organization". At this "revolutionary moment" which the authors term a "singular moment" or a "bifurcation point" the system will "disintegrate into chaos...or leap into a new, more differentiated, higher level of "order" or organization, which they call a "dissipative structure". (Dissipative structures are more complex and require greater levels of energy for maintenance.) The key concept being that order can spontaneously emerge from a state of disorder or chaos as a result of a "process of self-organization".

### **Related Concepts**

Open systems have the potential to be in equilibrium, near equilibrium, and far from equilibrium. It is when systems are in "far from equilibrium" states that "revolutionary moments" occur. When the systems are in equilibrium or near equilibrium they work in a deterministic way following predictable laws. When systems are far from equilibrium they become unpredictable, random chance plays a role. It is not possible to predict when the revolutionary moment will occur or what the revolutionary moment will bring. Time becomes irreversible once the revolutionary moment has happened. It is not possible for the system to go back to what it was. The "arrow of time" becomes irreversible unlike time that is reversible and can be traced backward or forward along a trajectory as in mechanical or classical science.

Given this understanding of open systems and dissipative structures Prigogine and Stenger convincingly argue that time and eternity, chance and necessity, order and chaos are all partners in destiny. Hence they make sense of age old debates such as universals versus particulars, determinism versus free-will, being and becoming.

## APPENDIX E

### Audit Trail Type Files

<b>Audit Trail Classification</b>	<b>Type Files</b>	<b>Guiding Questions/Categories</b>
<b>1. Raw Data</b>	<p>University calendar University registration guide Mission statements: University and Graduate studies Course outline Course content Weekly agendas Preparatory readings Class handouts Weekly seating map Field notes One sociogram Formative evaluations (10) PET Type Profiles, Archetypes Interviews student (9) Interviews other (2) Student journals (7) Student papers (6)</p>	<p>What is the class experience? What are the assumptions underlying the experience?</p> <p>plus educator summary evaluation</p> <p>educator; researcher by colleague</p>
<b>2. Data Reduction/Deconstruction and Analysis</b>	<p>A) Write-ups of weekly fieldnotes</p> <p>B) Comments by educator</p> <p>C) Distillation of: weekly write-ups transcribed interviews journals, papers</p>	<p>comments made re: each member relationships forms of representation used quality and form of student engagement underlying assumptions atmosphere artistry quality of content</p> <p>on weekly write-ups of fieldnotes</p> <p>done per person under the following categories: context; content; process self; relationships</p>

<b>Audit Trail Classification</b>	<b>Type Files</b>	<b>Guiding Questions/Categories</b>
<b>2. Data Reduction/Deconstruction and Analysis</b>	D) Summary descriptions written:	
	<u>Context</u>	university setting university mission statement graduate studies mission statement graduate studies course outline physical setting of class
	<u>Events:</u>	course outline course content agenda instructional methods
	<u>People:</u>	pictogram of seating formative evaluations per person
	E) Themes arising from each of the above categories:	<u>Context, Events, People</u>
	further deconstructed by:	Identifying symptoms and root causes/assumptions of assets and problems identified
<b>3. Data Reconstruction and Synthesis</b>	A) Each category above: further synthesized and reconstructed in concluding discussion at the end of each category	<u>Context, Events, People</u> further insight gained by applying other theoretical ideas and concepts other possibilities or recommendations discussed
	B) Final discussion interrelating the findings of the context, events, and process	final integration of concepts, relationships, between categories, with existing literature and findings in chapter two

APPENDIX F

Audit Trail Trustworthiness

**Audit Trail Classification:****Trustworthiness**

<b><u>Criterion Area</u></b>	<b><u>Technique</u></b>	<b><u>Evidence</u></b>
<b><u>Credibility</u></b>	Prolonged engagement	12 weeks; one semester; three hours per week in the field
	Triangulation: Multiple sources Differing sources	compared participant observations with: educator's comments student journal entries (7 journals) student's thoughts as expressed in: papers (6 papers) personal interviews with: students (9) and educator
	Theories	compared evidence with: critical, invitational, collaborative adult education, administration, feminist, developmental, scientific, philosophical, and Jungian theories
	Peer debriefing	consistently met with a colleague in the master's program; discussed details of research; debriefed; was interviewed by colleague using interview schedule
	Negative case analysis	sought consistently to find negative cases in order to generate variables and to split variables
	Member checks	clarified journal entry, paper, interview queries over the phone  clarified PET psychological type test results and archetype results personally with all 17 class members; all of which were confirmed



**Audit Trail Classification** **Trustworthiness**

<b><u>Criterion Area</u></b>	<b><u>Techniques</u></b>	<b><u>Evidence</u></b>
<b><u>Credibility Con't</u></b>	Member checks con't	met with 11 class members one evening to present and discuss research findings findings were confirmed
<b><u>Dependability and Confirmability</u></b>	Audit trail	kept and recorded audit trail

## APPENDIX G

### Research Proceedings

## RESEARCH PROCEEDINGS

<u>Date</u>	<u>Proceedings</u>
Summer 1992	<ul style="list-style-type: none"> <li>• decision made to observe a graduate studies class</li> <li>• permission granted by the university to proceed with the thesis course and the proposal course simultaneously</li> </ul>
September 8, 1992	<ul style="list-style-type: none"> <li>• met with Educator to discuss the feasibility and possibility of being a participant observer in her graduate studies class EDUC 5P23 Introduction to Adult Education ; decision made to proceed</li> </ul>
September 14, 1992	<ul style="list-style-type: none"> <li>• attended the first class; briefly discussed my intentions as a participant observer with the class members</li> </ul>
November 23, 1992	<ul style="list-style-type: none"> <li>• discussed the fact that my participant observation experience was going well and that I would like to use the data not only for the proposal but also for the thesis; class members agreed that I could do this and each provided me with their address, and phone number so I could contact them for formal consent; in addition papers and journals were offered to me to add to my data collection once the ethics committee accepted my proposal; colleagues offered to be interviewed about the course in the spring</li> </ul>
January, 1993	<ul style="list-style-type: none"> <li>• proposal accepted by thesis committee</li> </ul>
February, 1993	<ul style="list-style-type: none"> <li>• proposal accepted by ethics committee</li> </ul>
April, 1993	<ul style="list-style-type: none"> <li>• interviews with class members completed</li> </ul>
May, 1993	<ul style="list-style-type: none"> <li>• journals and papers analyzed</li> <li>• P.E.T. tests completed, computer analysis done</li> </ul>
June, 1993	<ul style="list-style-type: none"> <li>• interview with Educator completed</li> </ul>
July, 1993- November, 1993	<ul style="list-style-type: none"> <li>• completed review of the development of the Western mind (philosophy, science, religion)</li> <li>• applied understanding of assumptions of the Western mind to Transformation Theory and the experience of the graduate studies class</li> <li>• completed reduction and analysis, reconstruction and synthesis of data collected</li> </ul>
December 1, 1993	<ul style="list-style-type: none"> <li>• met with eleven class members to present research results; findings confirmed</li> </ul>
December, 1993	<ul style="list-style-type: none"> <li>• Final Report of Study written.</li> </ul>

## APPENDIX H

### Interview Schedule

## INTERVIEW SCHEDULE

### SECTION A: EDUCATION

- A1. What stands out for you as being important about your experience in the 5P23 class?  
 What stays with you?  
 What do you care about, think about?
- A2. Is the way you see yourself now different from the way you saw yourself before this experience?  
 What led to the changes?  
 Do you see yourself changing in the future?
- A3. In your learning in the class, have you come across an idea that made you see things differently...or think differently?
- A4. What was most helpful to you about the experience?  
 What was least helpful to you?
- A5. Were there things that were important to you that the course did not provide?  
 Are there things that you would like to have learned that you didn't think you learned from the course?
- A6. Looking back over your whole life, can you tell me about a really powerful learning experience that you've had, in or out of school?

### SECTION B: WAYS OF KNOWING

- B1. When learning about something you want to know do you rely on experts?  
 If not, who or what do you rely on?  
 If so, what do you do when the expert disagrees?
- B2. How do you know someone is an expert?  
 Did you think that we had any experts in the class?  
 If so who were they and what made them an expert?
- B3. If experts disagree on something today, do you think that someday they will be able to come to some agreement?
- B4. How do you know what is right/true?
- B5. Does the term "critical thinking" have meaning for you?  
 If so, what does it mean to you?  
 Did you find yourself or others in the class thinking critically?  
 Did you find our conversation/dialogue reflecting critical thinking?

**SECTION C: RELATIONSHIPS**

C1. What relationships were important to you in the class? Why?

C2. Did you perceive the group process as being democratic?

If so, what made it democratic for you?

If not, why not?

Is it important that the process be democratic or not? Why?

**SECTION D: GENDER**

D1. Do you think there are any important differences between the men and the women in the class?

**SECTION E: REAL LIFE MORAL DILEMMA**

Should a dilemma or personal conflict be identified during the interview:

E1. What was the situation? What was the conflict for you in the situation?

E2. In thinking about what to do, what did you consider? Why?  
Were there other things that you thought of in trying to decide what to do? How did you weigh each alternative?

E3. What did you decide to do? Why? What happened?

E4. Looking back on it now, did you make the best choice? Why or why not?

E5. Thinking back over the whole experience, what did you learn from it?

(Belenky, Clinchy, Goldberger, Tarule, 1986, p. 231-235)

## APPENDIX I

### Audit Trail Pragmatic Problem Solving Model

**Audit Trail Classification: Pragmatic Problem Solving Model**

What is happening?	What is the problem?	What can we do about it?	What should we do?	How should we do it?
<b>STEP 1</b>	<b>STEP 2</b>	<b>STEP 3</b>	<b>STEP 4</b>	<b>STEP 5</b>
Analyze problem situation	Identify problem	Develop & evaluate alternatives	Decide on best alternative	Implement the decision effectively
<b>Major Elements</b>	<b>Statement</b>	<b>Alternatives</b>	<b>Best Alternatives</b>	<b>Possibilities</b>
<ul style="list-style-type: none"> <li>• Context</li> <li>• Events</li> <li>• Process</li> </ul>	<ul style="list-style-type: none"> <li>• Symptoms</li> <li>• Assumptions</li> <li>• Asset/Problem statement</li> </ul>	<p>Alternatives and possibilities created for the actual graduate class situation are discussed at the conclusion of each major element discussion and in the final discussion interrelating the findings from the major elements.</p> <p>Future research and practice recommendations generated by the data analysis and synthesis are discussed in chapter five.</p> <p>Alternatives and possibilities derive from existing literature and creative thinking.</p>		
Each element described existentially	Symptoms, Assumptions, Asset/Problem statements discussed separately for each of the major elements			
Student and educator voices included. Information derived from the raw data and the reduction and analysis.	Assumptions derived from chapter 2			
Themes identified				



## APPENDIX J

### Psychological Typology

1. Carl Gustav Jung: Psychological Typology
2. Type Descriptions
3. Interpreting a Profile
4. Class Member Psychological Profile Results
5. Generalizations about Psychological Type  
Results in Terms of Type Class

### Carl Gustav Jung: Psychological Typology

Jung's insights on psychological type were aroused by a comment made by William James (1842-1910), the American pragmatist (Storr, 1983, p.160). James spoke of "tender minded" and "tough minded men", this equated with Jung's recognition of opposing forces in nature. The thought of the tender and tough minded men evoked a series of thoughts in Jung beginning with the recognition of the introverted and extroverted personality types.

Jung writes (p. 160), "Inquiries into history have shown me that not a few of the great spiritual controversies rest upon the opposition of the two types. Throughout chapter two this opposition has been present. The introverted, "inner orientated" world of Plato and the philosophical school of Idealism stood in opposition to the "outer orientated" world of Aristotle and the school of Realism. Variations on this theme were recurrent, the romanticist and the scientist, the German Idealists and the British Empiricists, and so on.

#### Psychological Type

Jung describes psychological type in terms of two attitude types and two function types.

#### Attitude Types

Jung refers to introversion and extraversion as the "attitude types". The two types have a different "attitude toward the object" (Campbell, 1987, p. 178). The introverted character is reflective by nature causing the person to think before acting and to withdraw from the "object" to his or her inner world. This attitude is a subjective one. The introverted type gains energy when on his or her own in quiet contemplation.

The extraverted type is conversely drawn or attracted to the "object" to the external world. "As a rule he acts first and thinks afterward." The attitude is one of objectivity. The extrovert desires "to influence and be influenced by events" and people. The extrovert gains energy by being with people and being involved in events (Campbell, 1978; Knoop and Cranton, 1990a, p. 3; Storr, 1983, p. 169).

#### Function Types

Jung further divided the psychological types into function types. The first set of function types are rational functions, thinking and feeling. The second set are irrational functions, sensing and intuiting.

The thinking function yields a logical analysis which leads to a decision, a judgement. The feeling function provides an evaluation of likes and dislikes or values in order to discriminate among choices". (Knoop and Cranton, 1990a, p. 4).

The irrational types do not base what they do on rational judgment but rather on "the sheer intensity of perception" (Campbell, 1987, p. 226). The sensate type perceives "what is" and the intuitive type perceives "what could be".

Individuals possess aspects of each of the attitudes and functions. There is a preference, however, for one attitude. The attitude influences how the functions are manifested, consequently the extroverted thinking type is different to the introverted thinking type and so on through the other functions. Each individual tends to have one dominant function that is more developed than any of the other functions and an auxiliary function that assists the dominant function when the dominant functions fails or flounders.

#### The Psychological Type Descriptions

Each of the psychological types are compiled and described in this section under the title "Psychological Type Descriptions". Each type is described under the following headings, general description, problem solving style, leadership style, and teaching style. The description of each type also includes a listing of the number of class members having the type as their dominant and auxiliary type and are recorded in terms of male and female differences. The material included in the descriptions derives from Jung's work as translated by Campbell (1987) and Knoop and Cranton's work on Jung (Knoop and Cranton, 1990a, 1990b, 1990c; Knoop, 1990b).

### The \*P.E.T. Psychological Type Test

Knoop and Cranton have developed a Jungian psychological type test, the "P.E.T. psychological type test". This test most closely represents Jung's work of the Jungian type tests I have encountered, the Myers-Briggs Type Indicator and the Keirsey Temperament Sorter. The test is built using Jung's words and descriptions as closely as possible. The test results display a person's strength in all possible domains, thus the amount of each function present in extaversion and introversion is accounted for. The test indicates a person's dominant and auxillary type. The test has undergone reliability and validity testing and the results are as follows (Knoop and Cranton, 1993). A sample of the instructions for interpreting a profile is included below in this appendix.

#### Reliability:

Using the Cronbach Alpha reliability analysis, the coefficients for each scale were found to be:

ET	.65	IT	.71
EF	.79	IF	.78
ES	.75	IS	.75
EN	.82	IN	.80

The ET coefficient is a bit low, but the others are considered quite good.

#### Validity

Construct validity was established by the procedures used to develop the test; i.e. items were based on direct quotes or paraphrases from the Jung book, *Psychological Types*.

Content validity was established by selecting individuals who were "pure" types (clear profiles), giving them a reading from Jung related to their dominant type. They did this with 80% to 94% accuracy, depending on their type, with ET's being the lowest.

### The P.E.T. Psychological Testing of the Class Members

Each member of the graduate studies class with the exception of one completed the P.E.T. test in April, 1993. The two authors of the test interpreted the results independently of one another. Their interpretations are listed in a chart below under Author #1 and Author #2. These results were then compared with the written profiles of each member of the class derived from the participant observation experience, journals, papers, and interviews, and a decision was made by the researcher about the final result of each type.

These results were discussed with each member for confirmation of the type. The final decision about the type determined by the researcher using the two authors assessments and the written profiles were all accepted by the class members, no further changes were made after the discussion with the class members. The one class member who did not complete the profile attempted to remember a Myers-Briggs test result previously done, so between that result and the researcher's profile type, was determined and confirmed by the class member.

The class members psychological types and archetypes are compiled and included in appendix K, the check mark by each type and archetype means that the member agreed with the description. These descriptions included the educator and all the members with the exception of the researcher thus N=17.

A listing of the types for each class member are included in this appendix. This listing includes the researcher's type thus N=18. The results were also looked at in the variety of ways as displayed in this appendix.

### Type and the Graduate Studies Class

Psychological type was considered in terms of the overall group, gender, age, and the association of age, gender and type. In terms of participation in large group discussions see displays included in this appendix. People were found to be associated with one of three groups in terms of vocal participation in the group: 8 people tended to be silent; 4 contributed occasionally; 5 people were major conversants.

### Overall Group and Type

All types with the exception of the Introverted Intuitive type were represented in the dominant and auxiliary types in the group. The group was predominantly extraverted Intuitive and Introverted thinking. Theoretically the discussions in the group would have been both exploratory and critical in nature with these dominant types. However, the discussions were not exploratory or critical even though this possibility was high for this to exist.

Four of five people in the major conversant group had extraverted intuitive type. One of the conversants was an extroverted sensate. Four had an introverted thinking type component as either their dominant or auxiliary type (see voice and type). One was had an introverted feeling component.

### Age, Gender, Type and Voice

Age, and gender were evenly divided amongst the three groups defined in terms of vocal participation in the group. One introverted type participated regularly in the large group discussions, otherwise the introverted types tended to be quiet in the large group, as is characteristic of the type.

The one introverted type that participated in large group discussions had specifically made an objective to participate and included this as a written objective for the course. Also one person with an extraverted Intuitive and introverted feeling type had made a specific objective to participate and written about the experience in her journal. Both envisioned participating, both discussed the discomfort of this and imagined overcoming this and did so.

Extraverted Intuitive and Introverted thinking types were also present in the groups that were less vocal in the discussions making it impossible to consider just type when thinking about vocal participation in the large group discussions. Age and gender were proportionately the same in each of the three groups representing voice. Evidently other factors influence voice/participation in the group.

\*P.E.T., Professional Effectiveness Technologies

# TYPE DESCRIPTIONS - EXTROVERTED INTUITIVE (EN)

TYPE	GENERAL DESCRIPTION	PROBLEM SOLVING STYLE	LEADERSHIP STYLE	TEACHING STYLE
<b>EN</b> # in Group 8 Dominant 7 Female 1 Male 3 Auxiliary 1 Female 2 Male	<ul style="list-style-type: none"> <li>•Constantly envision new possibilities.</li> <li>•Seek to discover new outlets in environment</li> <li>•Have insight into what is hidden, emerging, beginning</li> <li>•Unconscious is actively creative, seizes and shapes their visions</li> <li>•Attitude of expectancy</li> <li>•Little patience with here and now</li> <li>•Enter new situations with intensity and enthusiasm</li> <li>•Won't let go until all possibilities exploited</li> <li>•Then become bored and trapped and abandon situation</li> <li>•Not influenced by thoughts or feelings</li> <li>•Indifferent to what is not part of this vision</li> <li>•May be seen as lacking judgement, callous, exploitive</li> <li>•In intimate relationships bring out best in other even to detriment of self</li> <li>•Kindle enthusiasm in others</li> </ul>	<ul style="list-style-type: none"> <li>•Stimulated by difficult novel problems</li> <li>•Track down causes</li> <li>•Perceive relationships among problem elements</li> <li>•Search for emerging solutions</li> <li>•Aim is to discover with intensity possibilities problem holds in store</li> <li>•Are able to persuade other group members of the value of possibilities they generate</li> <li>•Are intuitive about members in the group and their potential</li> <li>•Inspire courage and enthusiasm</li> <li>•can be inconsiderate of others in group</li> <li>•Once possibilities have been explored will abandon further necessary steps to determine action</li> <li>•Require thinking or feeling functions to criticize, evaluate and stick to project</li> </ul>	<ul style="list-style-type: none"> <li>•Can have strong influence on people and tasks <u>if</u> situation holds possibility</li> <li>•Good leaders when situation is complex, novel, and new</li> <li>•Can involuntarily submit to authority of their vision</li> <li>•Can inspire others or</li> <li>•Be inconsiderate and ineffectual</li> <li>•Present vision convincingly</li> <li>•Can be half-hearted about ordinary tasks</li> <li>•Lead based on sheer intensity of vision not rational judgements</li> <li>•Can appear naive, awkward, unconvincing, if use rational judgement</li> </ul>	<ul style="list-style-type: none"> <li>•Bring enthusiasm, intensity and possibility to teaching situation</li> <li>•Inspire courage and enthusiasm</li> <li>•Style is "contagious"</li> <li>•Preferred style is interaction with others, ideas and possibilities</li> <li>•Work best with advanced learners with experience</li> <li>•Work best with subjects that are new and exciting</li> <li>•Vision leads to "directing" others</li> <li>•Also comfortable with interaction "orchestrating"</li> <li>•Lose interest in students and subject when there appears to be no possibilities</li> <li>•Tendency to consider rational types half-alive</li> <li>•Best in higher education, in situations where there is flexibility to change courses, approaches etc.</li> <li>•Day workshops, unusual and difficult teaching situations appeal</li> </ul>

# TYPE DESCRIPTIONS - EXTROVERTED SENSING (ES)

TYPE	GENERAL DESCRIPTION	PROBLEM SOLVING STYLE	LEADERSHIP STYLE	TEACHING STYLE
<p>ES</p> <p># in Group</p> <p>3 Dominant</p> <p>2 Female</p> <p>1 Male</p> <p>3 Auxiliary</p> <p>2 Female</p> <p>1 Male</p>	<ul style="list-style-type: none"> <li>•Best described as living "real life to the fullest"</li> <li>•Pay attention to all things in their environment and good food, beautiful people, possessions, fashion, parties, sports, meetings</li> <li>•Orientate themselves by concrete facts, actual experiences</li> <li>•May seem rational but are unperturbed by violations of logic</li> <li>•Have little patience with the abstract</li> <li>•Master of objective reality</li> <li>•Likely to be punctual and neat</li> <li>•Seen as good company "life of the party"</li> <li>•In intimate relationships value physical attraction thoughts and feelings of the person may be of little interest to them</li> <li>•Enjoyment has its special priority for them</li> <li>•Strong sense of reality based on facts</li> </ul>	<ul style="list-style-type: none"> <li>•Bring realism and practicality to group</li> <li>•Absorb and remember an immense number of facts</li> <li>•Action oriented</li> <li>•move group toward feasible alternatives</li> <li>•Concentrate on facts, bring out details</li> <li>•Give realistic assessment of solution possibilities in real life</li> <li>•Prefer perceptive attitude therefore do not judge, are easy going</li> <li>•Do not generate conflict</li> <li>•Little inclination for reflection</li> <li>•Frequently act before they think, ignore possible consequences, fail to make imaginative long-range implementation plans</li> <li>•Can seem shallow or unimaginative without a well developed introverted function</li> </ul>	<ul style="list-style-type: none"> <li>•Practical, concrete, reality oriented</li> <li>•Well adjusted to daily organization life</li> <li>•Thrive on work</li> <li>•Notice specifics and details</li> <li>•Do not repress unpleasant</li> <li>•Well informed</li> <li>•Enjoy followers without judgment, and without overly desiring to influence</li> <li>•Follower feel at ease</li> <li>•Attracted to followers who make an impression on them</li> <li>•These impressions are more important than logic and reason</li> <li>•Appreciates knowledge that derives from experience rather than theory</li> <li>•Generally agree with plans and objectives</li> <li>•Power base is in knowledge and facts •this frees them from prejudice and convention</li> </ul>	<ul style="list-style-type: none"> <li>•Preferred teaching style is with real experiences and real objects</li> <li>•Lively capacity for enjoyment which is contagious</li> <li>•Enjoy working with young or in higher education (i.e., practical fields)</li> <li>•Ideally involved in experiential learning</li> <li>•Style is not necessarily instructor-centred, but do enjoy guiding learners</li> <li>•Comfortable with group process</li> <li>•Abstract ideas are uncomfortable</li> <li>•Not effective in theory-based courses</li> <li>•Not interested in theories for their own sake</li> <li>•Strength is in relating learning to experience, a style promoted by John Dewey</li> </ul>

# TYPE DESCRIPTIONS - EXTROVERTED FEELING (EF)

TYPE	GENERAL DESCRIPTION	PROBLEM SOLVING STYLE	LEADERSHIP STYLE	TEACHING STYLE
<b>EF</b> # in Group 0 Dominant 5 Auxiliary 4 Female 1 Male	<ul style="list-style-type: none"> <li>•Enjoy harmony with others and environment</li> <li>•Enjoy being with others and agreeing with them</li> <li>•Smooths out conflicts</li> <li>•Create atmospheres of warmth and harmony</li> <li>•Holds culturally accepted values and traditions</li> <li>•Logic that contradicts feelings is unacceptable</li> <li>•Quick to determine what a situation needs and adjusts to it</li> <li>•Appreciated by others</li> <li>•Get things going at a party</li> <li>•Enjoy social gatherings</li> <li>•Sensitive to others</li> <li>•May extravagantly display feelings "gushy"</li> <li>•This may mask negative feelings which emerge when alone</li> </ul>	<ul style="list-style-type: none"> <li>•Relates well to others regardless of task</li> <li>•Create co-operative vs. competitive atmosphere</li> <li>•Agreeable, friendly, tactful and warm</li> <li>•Empathize, sympathize</li> <li>•make decisions quickly as they continually evaluate desirable and acceptable and undesirable and unacceptable</li> <li>•Decisions commonly result in approval</li> <li>•Follow and enforce group norms</li> <li>•Conform to established norms</li> <li>•Blind to facts &amp; ideas behind alternatives that oppose norm</li> <li>•Can come to closure prematurely</li> <li>•May act on insufficient or faulty facts</li> </ul>	<ul style="list-style-type: none"> <li>•People oriented</li> <li>•Excellent rapport with followers</li> <li>•Have follower's confidence and trust as they are genuine, warm, tactful</li> <li>•Choose people over tasks if pushed</li> <li>•Create a cooperative, warm climate</li> <li>•Consult with others frequently</li> <li>•Involve others in decision making on matters that will affect them</li> <li>•Guided by organizational standards and values</li> <li>•Support culture of organization</li> <li>•Act rationally</li> <li>•Show sound judgement</li> <li>•Thinking appears slow and negative to thinking type</li> <li>•Guided by what "feel" is right not what "think" is right</li> </ul>	<ul style="list-style-type: none"> <li>•Fit well into most educational institutions</li> <li>•Accept tradition and structure</li> <li>•Simply enjoy working with people</li> <li>•Do not do well with the critical, controversial or confrontational subjects</li> <li>•Difficulty with law and medicine where competition outweighs cooperation</li> <li>•Prefer interaction</li> <li>•Prefer "getting to know" students</li> <li>•Directive only when required to maintain relationships</li> <li>•Enjoy subjects where values are part of curriculum</li> <li>•Would not enjoy math, stats etc.</li> <li>•Rational perception inhibits insight</li> </ul>

# TYPE DESCRIPTIONS - EXTROVERTED THINKING (ET)

TYPE	GENERAL DESCRIPTION	PROBLEM SOLVING STYLE	LEADERSHIP STYLE	TEACHING STYLE
ET # in Group 0 Dominant 1 Auxiliary 1 Female	<ul style="list-style-type: none"> <li>•Governed by intellectual consideration and conclusions</li> <li>•Gather information from world, reflect on it, then judge how to behave</li> <li>•Thinking can be concrete or ideal</li> <li>•Judge according to their strong principles and ideals</li> <li>•Justice and truth important</li> <li>•Prefer logic and order</li> <li>•More interested in facts, ideas than efforts on others</li> <li>•May seem cold impersonal unfriendly and materialistic</li> <li>•Intolerant, expect conformity</li> <li>•Loyal</li> <li>•Confident of selves</li> </ul>	<ul style="list-style-type: none"> <li>•Excel in solving problems in groups</li> <li>•Articulate and logical</li> <li>•Prone to take over and force group to organize and classify facts</li> <li>•Analyze, define problem, generate alternatives well</li> <li>•Can become too analytical become overpowered by facts or not take time to look at all facts</li> <li>•Can be overly cautious and stick rigidly to rules</li> <li>•Can be impersonal</li> <li>•Need to develop an auxiliary perceptive function</li> </ul>	<ul style="list-style-type: none"> <li>•Interested in what happens in organization</li> <li>•Will try to have as much influence as possible</li> <li>•Outward directed</li> <li>•Positive, productive, practical thinkers</li> <li>•Thrive on demanding tasks</li> <li>•Impersonal</li> <li>•Direct rather than listen</li> <li>•Can be oversensitive, resentful and mistrust</li> <li>•Do not network easily</li> <li>•Excel at traditional functions, planning, organizing, controlling and decision making</li> <li>•Place demands on self and others</li> <li>•Weakness-human relations</li> </ul>	<ul style="list-style-type: none"> <li>•Concerned with immediate experiences</li> <li>•Practical and positive</li> <li>•Fair, just</li> <li>•Principles are strong</li> <li>•Adherence to principles may inhibit freedom of learner</li> <li>•May not relate to students idea or thought</li> <li>•Reliance on external may narrow thinking</li> <li>•Activities based on the artistic, aesthetic, friendship may be repressed</li> <li>•Instructor-centred</li> <li>•Convey what is "true"</li> <li>•Organize people, material and activities well</li> </ul>



# TYPE DESCRIPTIONS - INTROVERTED THINKING INTROVERTED THINKING (IT)

TYPE	GENERAL DESCRIPTION	PROBLEM SOLVING STYLE	LEADERSHIP STYLE	TEACHING STYLE
<b>IT</b>  # in Group  5 Dominant 2 Female 3 Male  5 Auxiliary 4 Female 1 Male	<ul style="list-style-type: none"> <li>•Lives in inner world of thoughts and ideas</li> <li>•Not dependent on experience or others or traditional ideas</li> <li>•Concerned with developing and presenting new ideas</li> <li>•Enjoy working with theories and models</li> <li>•Prefers the logical and analytical</li> <li>•Make decisions on basis of organized, systematic analysis <u>not</u> gut feeling</li> <li>•Ideas not based on facts but on shadowy images and unconscious forces</li> <li>•Tend to force facts to fit images</li> <li>•Strength is not in originality or persuasion but in clarity and organization</li> <li>•Generally indifferent to others opinions</li> <li>•May be polite and kind but in reality are out to disarm</li> <li>•Need solitude</li> <li>•Described as "cold"</li> <li>•Strong inner principles</li> <li>•Believe in absolute truths</li> </ul>	<ul style="list-style-type: none"> <li>•Thinking is rational, analytical, impersonal and directed inward</li> <li>•More interested in theory than real life problems</li> <li>•Live in world of ideas</li> <li>•Have difficulty telling other group members why A is better than B</li> <li>•Thinking is positive and logical, but not articulated well</li> <li>•May become annoyed or inflexible</li> <li>•Judgments often appear cold and unemotional</li> <li>•Good at formulating questions, defining problems, organizing ideas, discovering underlying principles</li> <li>•Not good at dealing with others</li> <li>•Force facts to fit ideas</li> <li>•Relate to group through auxiliary function, sensing or intuition</li> </ul>	<ul style="list-style-type: none"> <li>•Interested in inner thought processes and ideas, people and things are secondary</li> <li>•Not out to win appreciation of others</li> <li>•Not easily influenced in plans or conceptions</li> <li>•Not practical</li> <li>•Best discovering new vistas and insights</li> <li>•Good at logical analysis, conclusions, judgments so make good leaders in tough situations</li> <li>•Valued for contribution and judgments</li> <li>•Can think through how best to perform and can convince</li> <li>•Tend to dump thoughts and not explain</li> <li>•Annoyed when ideas fail to thrive</li> <li>•Can be defensive as may fear ideas may not be accepted</li> <li>•Men can be perceived as domineering and inconsiderate</li> <li>•Can be perceived as unsympathetic to some or as sensitive and friendly to others</li> </ul>	<ul style="list-style-type: none"> <li>•Ideal for higher education</li> <li>•Enjoy working with and creating theories</li> <li>•Facts used to illustrate theories otherwise facts are of no interest</li> <li>•Emphasis on creation, integration and organization of theories</li> <li>•Preference is instructor centered, directed, organized teaching</li> <li>•Expect others to bow to truths</li> <li>•Do not seek appreciation</li> <li>•Do not necessarily realize what is clear to themselves is not clear to others</li> <li>•Impatient with others when ideas don't fit with own</li> <li>•Can be effective with small groups of learners over time</li> <li>•Will never be described as warm or enthusiastic</li> </ul>

# TYPE DESCRIPTIONS - INTROVERTED FEELING (IF)

TYPE	GENERAL DESCRIPTION	PROBLEM SOLVING STYLE	LEADERSHIP STYLE	TEACHING STYLE
<b>IF</b> # in Group 1 Dominant 1 Female 1 Auxiliary 1 Female	<ul style="list-style-type: none"> <li>•Live in a quiet inner world of own values, visions, feelings</li> <li>•Have inner intensity others do not see</li> <li>•Outside world is only a stimulus, really look for images have seen in visions</li> <li>•"Still waters run deep" describes type well</li> <li>•Silent, difficult to know, hard to understand</li> <li>•Do not express selves well</li> <li>•Enjoy solitude</li> <li>•Do not tend to "shine"</li> <li>•Strong sense of self-containment</li> <li>•Find it difficult to establish close relationships</li> <li>•Constant readiness for peace and harmony but little effort to respond to real emotions of others</li> <li>•Others find them silent, inaccessible and hard to know</li> </ul>	<ul style="list-style-type: none"> <li>•Guided by inner feelings and values and strive for inner intensity</li> <li>•Seldom express self</li> <li>•Not out to impress</li> <li>•Others find them difficult to understand</li> <li>•Guided by inner images and abstract feelings</li> <li>•Hide real personality, warmth, enthusiasm they are capable of</li> <li>•Appear inconspicuous, reserved, cold, mainly because feelings are too deep and overpowering to be expressed to group members</li> <li>•Can become devoted, loyal group members if it is a task that is believed in</li> <li>•Decisions of others and external facts do not influence them</li> </ul>	<ul style="list-style-type: none"> <li>•Little desire to influence others thus have little influence as leaders</li> <li>•Present outward appearances of harmony, yet like to be inconspicuous</li> <li>•Silent type leaders and do not reveal much about themselves</li> <li>•Inwardly feel deeply about people and tasks</li> <li>•Are difficult to understand</li> <li>•Can seem silent and domineering</li> <li>•This influence stems from deep, passionate, unspoken feelings</li> <li>•Feelings are aroused by people, tasks, events but are transformed into images</li> <li>•If task not stimulating, it is devalued</li> </ul>	<ul style="list-style-type: none"> <li>•Happiest working with young children or learners with special needs</li> <li>•Preferred style is working intensively with small groups of learners</li> <li>•Outward demeanour of harmony and sympathy</li> <li>•Can be seen as faintly superior</li> <li>•May admire or be drawn to extroverted type, but will not last, will withdraw when preference takes over</li> <li>•Can be effective in one day workshops</li> <li>•Can be seen not to appreciate learners</li> <li>•Need to work at expressing positive feelings and giving positive feedback</li> </ul>

# TYPE DESCRIPTIONS - INTROVERTED SENSING (IS)

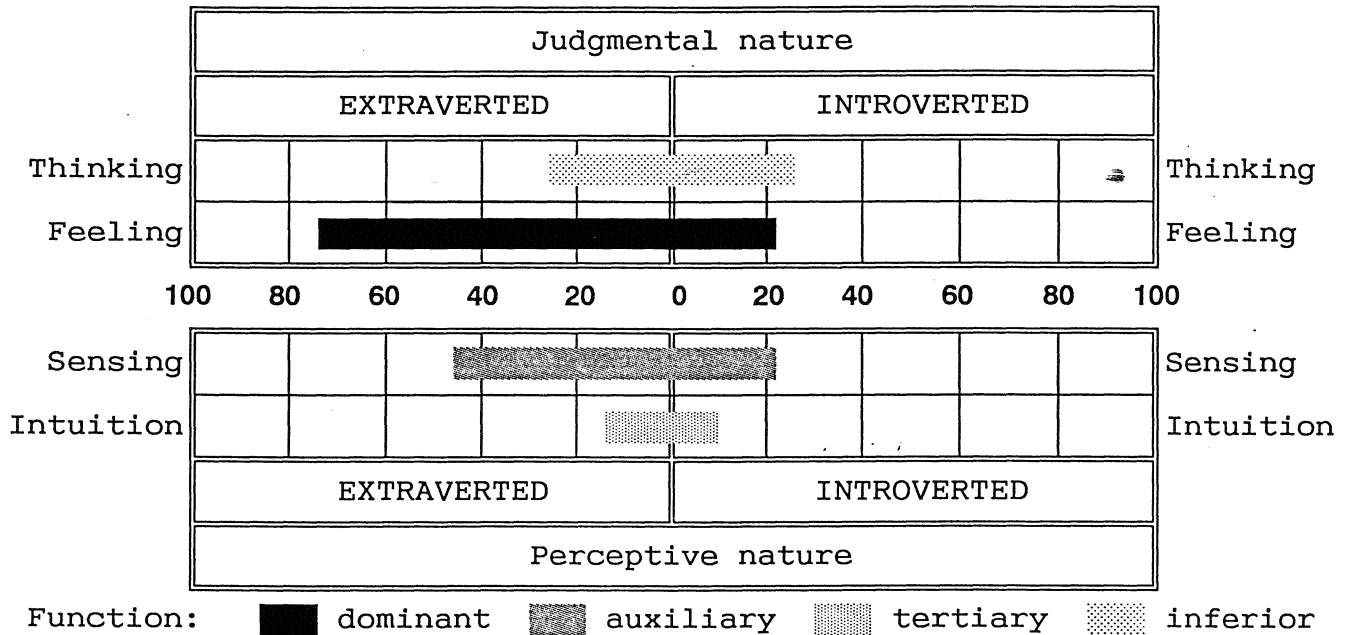
TYPE	GENERAL DESCRIPTION	PROBLEM SOLVING STYLE	LEADERSHIP STYLE	TEACHING STYLE
IS  # in Group  1 Dominant 1 Female  0 Auxiliary	<ul style="list-style-type: none"> <li>•World is based on "what is" and "what happens"</li> <li>•Aware of smallest details</li> <li>•Modify reality by adding the unconscious disposition to what is perceived</li> <li>•More in tune with own perceptions of reality than others</li> <li>•Prefer quiet arrangements and routines</li> <li>•Enjoy taking care of "little things"</li> <li>•Sense accomplishment when details taken care of</li> <li>•Greatest strength is sensitivity to people and objects</li> <li>•Prefer inner world so may have difficulty establishing relationships with others</li> <li>•May seem unpredictable, arbitrary, difficult to understand</li> <li>•Live in their own perception of the here and now</li> </ul>	<ul style="list-style-type: none"> <li>•Practical, realistic, factual</li> <li>•Do not perceive problems objectively but subjectively</li> <li>•Value impressions released within them rather than real elements in situation</li> <li>•Motivated by intensity of sensations problem stimulates in them</li> <li>•Problem may only be tangentially related to real problem</li> <li>•Which part of problem will impress them cannot be predicted by others</li> <li>•May see things others do not see due to rich inner life</li> <li>•Systematically solve problems</li> <li>•Patient with details</li> <li>•Does not communicate well with others in group</li> <li>•Not readily convinced they are wrong</li> <li>•Relate problems to past experiences</li> <li>•Unless have a well developed secondary function, can feel isolated in group and becomes silent, uncommunicative, inaccessible</li> </ul>	<ul style="list-style-type: none"> <li>•Reserved not forthcoming with people</li> <li>•Tackle tasks on how they perceive them to be done</li> <li>•must overcome</li> <li>1. Being underestimated and misunderstood by others.</li> <li>2. Being unrelated and unconnected to reality of situation</li> <li>•Not easily understood by followers</li> <li>•What is perceived to be happening may not be happening at all</li> <li>•Mind has changed reality</li> <li>•Frequently see things differently</li> <li>•followers may have little sympathy</li> <li>•As a result may become inhibited and isolated and prefer to work alone</li> </ul>	<ul style="list-style-type: none"> <li>•Greatest strength is sensitivity to others</li> <li>•Prefer quiet organization and routines and accomplishing lists of things</li> <li>•Work well with small groups of learners where goal is concrete skills (technical, secretary, mechanics, library science) and introductory courses in sciences and social sciences</li> <li>•Difficulty in communication may be seen as lack of warmth by students</li> <li>•Would have difficulty with teaching personal development, value clarification, group interaction or with aggressive audiences</li> <li>•Would be especially effective with individualized instruction</li> </ul>

### INTERPRETING A PROFILE

To interpret your **PET Type Profile** correctly it is important that you read the sections on type in chapters One and Ten. Below are two examples that illustrate some of the major principles of Jung's type theory.

1. The primary function, the most preferred way of being and behaving, usually has the highest numerical value, the longest bar. In Example 1, the primary function is extraverted feeling.

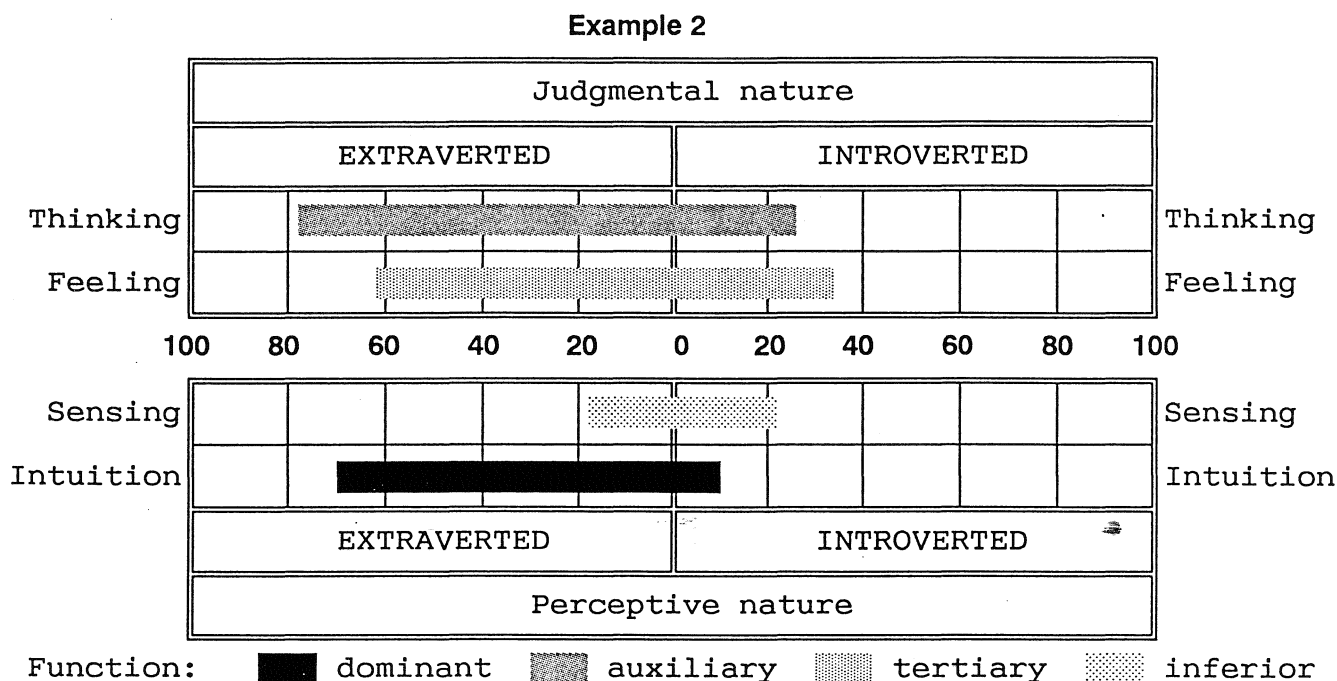
Example 1



Consider these two questions: how strong is the primary function? Is it clearly stronger than the next function? The stronger it is, the more the predicted leader behavior in chapters Two to Nine will apply. In Example 1, the primary function is quite differentiated, much longer (more developed) than the other three functions. Since it is clearly dominant, other functions will have less of a co-determining influence in determining behavior.

Please note that in some cases the primary function is not the longest bar but the most differentiated of the two sets of bars. In Example 2, in the upper box thinking is the longest bar, but feeling is equally long. In the lower box, intuition is much longer (differentiated) than sensing. Because of this differentiation, intuition should be considered the primary function. The two judgmental functions, although strong, are relatively undifferentiated and will compete with each other in directing behavior.

2. The secondary function is opposite in nature to the primary function. In Example 1, the secondary function is extraverted sensing, in Example 2, extraverted thinking. If the primary function is judgmental, the secondary function will be perceptive. The secondary function is therefore the longest bar in the "other box". Like the primary function, the secondary function



can also be extraverted or introverted. The secondary function, if differentiated, only assists the primary function and will never be as dominant.

The question to ask is: Is the secondary function clearly more pronounced than the tertiary function but less pronounced than the primary function? This is the case in Example 1. Here the secondary function will be able to assist the dominant function, feeling, and "help out" when needed. It is not the case in Example 2. Here it will only be one of two functions (extraverted thinking and extraverted feeling) to assist the primary function. It will therefore not be very reliable since both thinking and feeling will try to assist the primary function. Ideally, the secondary function is distinctly less dominant than the primary function but more dominant than the tertiary function, as in Example 1.

3. The tertiary and inferior functions get activated mainly if the primary and secondary functions are not very differentiated. In Example 1, thinking is only somewhat pronounced, intuition hardly at all. In Example 2, the tertiary function, feeling, is as strong and slightly more introverted than the secondary function, thinking.

4. The descriptions of leader behavior at the beginning of chapters Two to Nine should apply in relation to the length of the bar for each function. In Example 1, since the numerical value for EF is 75, about three quarter of the description should apply. You may want to underline what you believe to be "you". What is not underlined is unlike you. Yet others may behave like that.

5. Consider also two other aspects of your personality: your psychic energy and the quality of each of your functions (see Chapter Ten). Both aspects help explain differences in behavior of leaders of similar type.

## Class member psychological profile results

Class Member	Author #1	Author #2	Final Result
#1	IT (ES)	ES (IT)	IT (ES)
#2	IT (ES)	IT (ES)	IT (ES)
#3	EN (ET)	EN (ET)	EN (ET)
#4	ES (EF)	ES (EF)	ES (EF)
#5	EN (IT)	IT (EN)	EN (EF)
#6	E/IS (IT)	IS (IT)	ES (IT)
#7	EN (IT)	EN (IT)	EN (IT)
#8	EN (IT)	EN (IT)	EN (IT)
#9	EN (IT)	EN (IT)	EN (IT)
#10	IT (IS)	IT (ES)	IT (EN)
#11	IF (ES)	IF (ES)	IF (ES)
#12	IT (EN)	IT (EN)	IT (EN)
#13	IT (EN)	IT (EN)	IT (EN)
#14	EN (EF)	EF (EN)	EN (EF)
#15	EN (IT)	EN (IT)	EN (IT)
#16	ES (EF)	ES (EF)	ES (EF)
#17	EN (EF)	EN (EF)	EN (EF)
#18	N/A	N/A	IS (IF)

### Jungian Types Represented in Group

Includes Dominant and Auxiliary Types

EXTROVERTED	INTROVERTED
ET	IT
EF	IF
ES	IS
EN	

\* No IN only

### Dominant Jungian Types Represented in the Group By Number and Percentage of Group (N = 18)

DOMINANT TYPE	#	% OF GROUP
EN	8	44.5
IT	5	27.8
ES	3	16.7
IS	1	5.5
IF	1	5.5
E	11	61
I	7	39

### Auxiliary Jungian Type Represented in Group by # of People with the Type and their % of the Group (N = 18)

AUXILIARY TYPE	#	% OF GROUP
IT	5	27.7
EF	5	27.7
ES	3	16.6
EN	3	16.6
ET	1	5.5
IF	1	5.5

Dominant and/or Auxiliary Jungian Types Represented in the Group by Number of People and Percentage of Group

TYPE	#	% OF GROUP
INTUITIVE	11	61
THINKING	10	56
FEELING	7	39
SENSATE	6	33

Dominant Jungian Types in Women and their Percentage of Overall Group  
(N = 13)

DOMINANT TYPE	#	% OF GROUP
EN	7	39
ES	2	11
IT	2	11
IF	1	5.5
IS	1	5.5

Auxiliary Jungian Types in Women and their Percentage of Overall Group  
(N = 13)

AUXILIARY TYPE	#	% OF GROUP
IT	4	22
EF	4	22
ES	2	11
EN	1	5.5
ET	1	5.5
IF	1	5.5



Dominant Jungian Types in Men and their Percentage of  
Overall Group  
(N = 5)

DOMINANT TYPE	#	% OF GROUP
IT	3	16.6
EN	1	5.5
ES	1	5.5

Auxiliary Jungian Types in Men and their Percentage of  
Overall Group  
(N = 5)

AUXILIARY TYPE	#	% OF GROUP
EN	2	11
ES	1	5.5
EF	1	5.5
IT	1	5.5

## APPENDIX K

### Archetypes

1. Jung, Bolen and Archetypes
2. Greek Mythological Gods and Goddesses and  
Jugian Types
3. Central Characteristics of Gods and Goddesses
4. Descriptions of the Gods and Goddesses
5. Class Members Psychological Types and  
Archetypes
6. Voice and Type

### Jung, Bolen and Archetypes

Jung began reading mythology in 1909 prior to his break with Freud. He had been drawn by the work of Friedrich Creuzer, *Symbolik und Mythologie der alten Völker*, which Jung wrote "fired" him to research the mythological world (Campbell, 1987). Jung avidly read through "mountains" of mythological material that included writings from Egypt, Babylon, India, Greece, Germany and the American Indians. The search resulted in the writing of "Symbols of Transformation" (p. xxi). It also resulted in Jung introducing "Archetypes" into the psychological field in the early 1920's (Nagy, 1991, 107).

Jung noticed that the "archetypes or norms of myths are common to the human species, they are inherently expressive neither of local social circumstances nor of any individual's singular experience, but of common human needs, instincts, and potentials" (Campbell, 1987, p. xxi). Jung saw archetypes as "mythological motifs or primordial images in the collective unconscious" (Storr, 1983, p. 16), the collective unconscious being the part of the unconscious that is universal. The collective unconscious is "more or less the same everywhere and in all individuals" (Bolen, 1984, p. 15). His question to himself became "What is the myth *you* are living?" Jung's search for his own myth and the many years that he devoted to investigating the subject has left us with methods which enable us to explore the unconscious forces that influence our behavior and lives.

Jung's thorough research revealed the fact that the myths of a culture provide the imagery through which archetypal themes are displayed. He also demonstrated that images and themes in dreams could be interpreted by the myths of the culture and if properly read could explain the unconscious archetypes pressing for recognition in a person's conscious world.

"Psychological Types" or "The Psychology of Individuation" was his first monumental work that gave insight into the forces of the unconscious. This work arose from, philosophical speculations from India, China, Japan, Classical antiquity, Gnosticism and the Early Fathers, the Middle Ages, Reformation, Renaissance, Baroque and Enlightenment, Kant, Goethe, Hegel, Schiller, Schopenhauer, Wagner, Nietzsche, and assorted moderns: all concerned with the single theme psychological type (Campbell, 1987, xxi).

Jean Shinoda Bolen M.D., a Jungian Analyst and Clinical Professor of Psychiatry at the University of California, San Francisco has taken the psychology of types and linked it with Classical Greek mythology, one of the mythological systems underlying the culture of the Western mind. The end product of her research into the characters of the Olympian pantheon and the insights they provide for us today about our own characters is recorded in her two books, "The Goddesses in Every Woman" (1984) and "The Gods in Every Man" (1989).

Bolen uses the myths as an "insight tool" to provide women and men with insight into their unconscious and to mirror their situations. Myths, she claims "evoke feeling and imagination and touch on themes that are part of the human collective inheritance" (1984, p. 6). A deeper understanding occurs when a myth is interpreted. It strikes a chord, a flash of insight, an "Aha" as a personal situation becomes clear as the myth is interpreted.

Towards the end of the analysis of the graduate studies class experience I was still casting around and wondering about the experience and still asking the question "why". I was also wondering how to present the data that was so personal in a humanistic and caring way...when I remembered Bolen's work and a comment made by Joseph Campbell about myths, "Dream is the personalized myth, myth is the depersonalized dream" (p. 6). It was like an "Aha" for me. I immediately wondered what would be revealed about the graduate studies class experience if I examined it from the point of the archetypes represented by each of us in the class? Further, the myths of the differing archetypes would provide a way to present the data in a depersonalized way as Campbell suggests it might.

This entire thought process resulted in returning to Bolen's work that I had read about a year before embarking on the research study and rereading it. As I read summaries were made of the Gods and Goddesses characteristics. These characteristics were categorized as general characteristics of the self, relationships, learning and work. Bolen had already highlighted relationships and work making the project easier. The summaries of characteristics of the Gods and Goddesses are included with these appendices. Included also is a listing of the Greek Gods and Goddesses by name, realm, and psychological type and a listing of their central characteristics (Bolen, 1984, 1989; Jung, 1982, 1991a, 1991b; Graves, 1960, 1990; Guerber, 1993).

Once a basic understanding of the Gods and Goddesses had been grasped they were compared with the P.E.T. psychological test results that were completed for each of the class members and the profiles developed on each individual. as a result of analyzing the data collected for the research. After working back and forth between Bolen's work, the individual summaries, the P.E.T. test results and remembering specific experiences in the class, and during the interviews an "Aha" reaction would suddenly occur. Instantly, an archetype would explain some of the happenings in the class, in journals, and during interviews with members of the class.

All of a sudden I would be sitting in Hestia's (an archetype's) classroom waiting to interview her...and there she would be the still point around which the children were gathered, they were so composed and so peaceful, and yet these were children who had learning disabilities were known to be anxious, difficult, and unsettled. Suddenly the image of Zeus would appear as he handed out the well presented "corporate" packages he had prepared for his class presentation...his organized style, his previously done needs assessment of the class. The magical moment of Aphrodite's class presentation would be felt again.

These moments of my own "Aha" persuaded me to write the profiles up of archetypes and personality types using the summarized material from type and archetype and give them to the class members for comment. The results confirmed the value of Jung's initial work, Bolen, Knoop, and Cranton's subsequent work on archetype and type.

All of the members agreed with the results. Many people engaged in lengthy conversations with me about how they gained new insights, understood an experience from earlier years or recently. Often emotions were stirred, a momentary tear as people were affirmed and recognized for their value and worth. Comments like "You have made me feel so good about myself", "Now, I understand", "Yes, that's me" were heard.

The confirmation of the results permitted using them in chapter four to describe and explain some of the happenings in the group discussions. These results also permitted discovering basic assumptions influencing the group discussion and happenings.

Archetype, psychological type, and student profiles developed over the course of the research confirmed one another adding a new dimension to the confirmation of such testing and methods. They also confirm Jung's idea that archetypes shape the way we "meet ourselves" in encounters with the external world, and are crucial for understanding links between the conscious and unconscious aspects of the psyche.

The class members profiles are included with this appendix. They include the educator and all the class members with the exception of the researcher, thus n=17.

## GREEK MYTHOLOGICAL GODS AND GODDESSES AND JUNGIAN TYPES

GREEK NAME	ROMAN NAME	REALM	JUNGIAN PSYCHOLOGICAL TYPE
Artemis	Diana	Goddess of the hunt and moon competitor, sister	usually extroverted, usually intuitive, usually feeling
Athena	Minerva	Goddess of wisdom and crafts, strategist and father's daughter	usually extroverted, definitely thinking, usually sensation
Hestia	Vesta	Goddess of the hearth and temple, wise woman and maiden aunt	definitely introverted, usually feeling, usually intuitive
Hera	Juno	Goddess of marriage, commitment maker and wife	Usually extroverted, usually feeling, usually sensation
Demeter	Ceres	Goddess of grain, nurturer and mother	usually extroverted, usually feeling
Persephone	Proserpina	The maiden and queen of the underworld, receptive woman and mother's daughter	Usually introverted, usually sensation
Aphrodite	Venus	Goddess of love and beauty, creative woman and lover	definitely extroverted, definitely sensation
Zeus	Jupiter or Jove	God of the sky, the realm of will and power	usually extroverted, definitely thinking both intuition and sensation present and future
Poseidon	Neptune	God of the sea, the realm of emotion and instinct	either extra or introverted, definitely feeling past and present
Hades	Pluto	God of the underworld, the realm of souls and the unconscious	definitely introverted, definitely sensation timeless
Apollo	Phoebus, Sol, Helios, Putheus, Cynthius	God of the sun - archer, law giver, favourite son	usually extroverted, usually thinking, usually intuition future
Hermes	Mercury	Messenger God and Guide of souls - communicator, trickster, traveller	usually extroverted, definitely intuitive, usually thinking Aware of past, present, future
Ares	Mars	God of war - warrior, dancer, lover	definitely extroverted, definitely feeling, definitely sensation Immediate present
Hephaestus	Vulcan	God of the forge - craftsman, inventor, loner	definitely introverted, definitely feeling, definitely sensation Present
Dionysus	Bacchus	God of wine and ecstasy - mystic, lover, wanderer	Either extra or introverted definitely sensation immediate present/timelessness

Adapted from Bolen, 1984 and 1989

# CENTRAL CHARACTERISTICS OF GODS AND GODDESSES

<b>ARTEMIS</b> Goddess of the Hunt and Moon, Competitor	<b>ATHENA</b> Goddess of Wisdom, Crafts, Strategist	<b>HESTIA</b> Goddess of the Hearth and Temple, Wise woman	<b>HERA</b> Goddess of Marriage, Commitment Maker	<b>DEMETER</b> Goddess of Grain, Nurturer	<b>PERSEPHONE</b> Maiden and Queen of the Underworld	<b>APHRODITE</b> Goddess of Love and Beauty, Creative Woman	<b>METIS</b>
Independence, autonomy Goal focused At one with nature Sister	Clear thinking Strategist Craftswoman Father's daughter	Inner centredness Personal meaning Spiritual meaning Maiden Aunt	Husband oriented Commitment Fidelity Attentive wife	Maternal Nurturing Generous Mother	Receptive Imaginative Guide to unconscious Mother's daughter	Focused and receptive Interactive consciousness Communicative Creative Lover	
			<b>FAVOURED SONS</b>		<b>REJECTED SONS</b>		
<b>ZEUS</b> God of the Sky Realm of Will and Power	<b>POSEIDON</b> God of the Sea Realm of Emotion and Instinct	<b>HADES</b> God of Underworld Realm of Souls and Unconscious	<b>APOLLO</b> God of the Sun-Archer Law Giver Favourite Son	<b>HERMES</b> Messenger God of Jokes Communicator Trickster	<b>ARES</b> God of War Warrior, Dancer, Lover	<b>HEPHAESTUS</b> God of the Forge Craftsman, Inventor	<b>DIONYSUS</b> God of Wine and Ecstasy, Lover
Powerful Decisive action Alliance maker Father	Emotional depth Access to feelings Loyalty Wildman	Rich inner world of images Subjective Detached Recluse	Clear definitions Thinking Values order, harmony Favourite son	Understands meaning Communicates ideas Friendly Traveller	Passionate, intense Physical reaction to emotions Lover - Physical	Creative Capacity to see and make beauty Skilful with hands Loner	Appreciation of sensory experience Love of nature Lover - ecstatic transpersonal

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>ATHENA</b> <u>Jungian Type:</u> Usually extroverted Definitely Thinking Usually Sensation  5 Dominant 1 Auxillary	<ul style="list-style-type: none"> <li>•Stands for domination of will and intellect over instinct and nature</li> <li>•Her spirit is founded in the city</li> <li>•Logical woman ruled by her head rather than her heart</li> <li>•Invulnerable and intact</li> <li>•Focuses on what matters to her vs. needs of others</li> <li>•has a realistic, pragmatic attitude</li> <li>•Epidome of the sensible adult</li> <li>•Defender of patriarchal rights and values which emphasize tradition and the legitimacy of male power</li> <li>•Resists change</li> <li>•Lives within the Golden Mean</li> <li>•Intellectual defenses keep her from feeling pain - her own or others</li> <li>•Practical, uncomplicated, unselfconscious, confident</li> </ul>	<ul style="list-style-type: none"> <li>•Forms strong alliances with men</li> <li>•Is Father's right-hand woman</li> <li>•Champions individual male hero's</li> <li>•Ranks patriarchal principles above maternal bonds</li> <li>•Enjoys being in midst of male action and power</li> <li>•Can be companion, colleague, confidante without erotic feeling or emotional intimacy</li> <li>•Naturally gravitates toward powerful men how have power, authority and responsibility</li> <li>•Little sympathy for the unsuccessful, downtrodden, or rebellious</li> <li>•Sisterhood is a foreign concept</li> <li>•Can be unempathetic about spiritual or moral issues or subjective experiences of others</li> <li>•may intimidate others unconsciously</li> <li>•May be unscrupulous in achieving her goals</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to think well and solve practical problems</li> <li>•Prefers activities that require purposeful thinking</li> <li>•Values rational thinking</li> <li>•Lacks romanticism or idealism</li> <li>•Enjoys working with her hands and brain</li> <li>•Needs mentors, sponsors, and allies to get ahead</li> <li>•Enjoys making crafts that are aesthetically pleasing</li> <li>•Emphasizing her foresight, planning, mastery and patience</li> <li>•Supports the status quo</li> <li>•Accepts established norms that guide behaviour</li> <li>•Learning objective facts, thinking clearly, taking tests, writing papers all require Athena skills</li> <li>•Logical thinking and dispassionate observation</li> <li>•Explains things clearly and well</li> <li>•Has preconceived notion of what should be</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to strategize</li> <li>•Strategy, practicality, tangible results are hallmarks of her particular wisdom</li> <li>•Develops good tactics in midst of conflict</li> <li>•Thrives in business, academic, scientific, military, political arenas</li> <li>•Knows the "Bottom Line"</li> <li>•Shines in realm of diplomacy: Diplomacy involving strategy, power, and deceptive manoeuvres</li> <li>•Knows what game is and how to score points: Doing research, getting published, serving on committees, receiving grants</li> <li>•Cooly assesses unexpected hostility or deception</li> <li>•Organization comes naturally</li> <li>•Has a canny ability to spot winners</li> <li>•Has excellent timing instincts</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>ARTEMIS</b> <u>Jungian Type:</u> Usually Extroverted Usually Intuitive Usually Feeling 3 Dominant 1 Auxillary	<ul style="list-style-type: none"> <li>•Independent feminine spirit</li> <li>•Sense of intactness</li> <li>•One-in-herself</li> <li>•Self-confident</li> <li>•Sense of worth based on who she is and what she does</li> <li>•At one with self and nature</li> <li>•Becomes reflective in nature</li> <li>•May look inward in middle years (35-55)</li> <li>•Active vs. passive</li> <li>•Courageous</li> <li>•Non-traditional</li> <li>•Does not hide abilities</li> <li>•Strength to express own view consciousness is focused and achievement oriented</li> <li>•May take personally unexpected hostility: Responses with outrage, thus is emotionally less effective</li> </ul>	<ul style="list-style-type: none"> <li>•Protects those who appeal for help</li> <li>•Demands equality</li> <li>•Will pursue interests at expense of relationships</li> <li>•Has sense of affiliation with other women</li> <li>•Relationship with women: sisterly</li> <li>•Relationship with men: brotherly</li> <li>•Can fail to notice other's feelings</li> <li>•Can be inattentive</li> <li>•Outraged at injustice</li> <li>•Loyal to others</li> <li>•Adaptation mode is separation from men</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to set and achieve self chosen goals</li> <li>•Goal focused</li> <li>•Has perseverance</li> <li>•Concentrates intensely</li> <li>•Undistracted from course</li> <li>•Competition heightens excitement</li> <li>•Achievement, completeness important</li> <li>•Pendant for exploration</li> </ul>	<ul style="list-style-type: none"> <li>•Leader - "Big Sister"</li> <li>•Acts swiftly and decisively</li> <li>•Does not need masculine approval in pursuit of interests</li> <li>•Goal oriented</li> <li>•Unconstrained by what should be</li> <li>•Feels strongly about causes and principles</li> <li>•Interests pursued do not necessarily have monetary value</li> <li>•Competes with men</li> <li>•Undeterred by opposition</li> </ul>



GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>APHRODITE</b> <u>Jungian Type:</u> Definitely Extroverted Definitely Sensate 1 Dominant 1 Auxillary	<ul style="list-style-type: none"> <li>•Never victimized</li> <li>•Never suffered</li> <li>•Values what is subjective, not what is measured in terms of achievement</li> <li>•Lives in the immediate present</li> <li>•Youthful attitude</li> <li>•Lust for life</li> <li>•Consciousness is focused <u>and</u> receptive</li> </ul>	<ul style="list-style-type: none"> <li>•Relationships important but not long term</li> <li>•Has a magnetic attraction and rapport</li> <li>•Empathetic</li> <li>•Focused yet receptive</li> <li>•Is not critical</li> <li>•Genuinely, momentarily involved</li> <li>•Comes alive in relationships</li> <li>•always a little in love with whatever or whomever is focused on</li> <li>•Attentiveness is deductive</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to enjoy pleasure &amp; beauty</li> <li>•Creative</li> <li>•Symbolizes creative transformation power of love</li> <li>•Cannot be diverted from goal</li> <li>•Values what is subjective not what is recognized or measured</li> <li>•Focused yet relaxed</li> <li>•Tremendous force for change</li> <li>•Prefers the arts</li> <li>•Experience best teacher</li> <li>•Not reflective by nature</li> </ul>	<ul style="list-style-type: none"> <li>•Is often a "vision carrier" for men</li> <li>•Nurtures vision and creativity</li> <li>Likes variety and intensity</li> <li>•Must hold emotional interest</li> <li>•Puts extra effort into what she loves</li> <li>•Prefers jobs that are interesting vs. well paying</li> <li>•Sparks creativity</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>DEMETER</b> <u>Jungian Type:</u> Usually Extroverted Usually Feeling 0 Dominant 7 Auxillary	<ul style="list-style-type: none"> <li>•Is maternal, generous and gives bountifully</li> <li>•Finds satisfaction as caretaker and giver</li> <li>•Is stubborn, patient and persevering</li> <li>•Is susceptible to depression if cannot fulfil her role as mother or surrogate mother</li> <li>•Sacrifices her own needs to fulfil those of others</li> <li>•Grieves her loss when no longer needed</li> <li>•Stops functioning when possessed with grieving</li> <li>•Generous - outer directed</li> <li>•Altruistic and loyal to individuals and principles</li> <li>•Has strong convictions</li> <li>•Needs to learn to say no and nurture herself</li> </ul>	<ul style="list-style-type: none"> <li>•Nurturers others</li> <li>•Attends to others physical, emotional and spiritual needs</li> <li>•Very supportive of others</li> <li>•When depressed, makes others feel defensive, guilty, angry, helpless or may withhold fulfilling others needs when depressed</li> <li>•Status is not important so friends are chosen from a wide variety of social and racial backgrounds</li> <li>•Not competitive with other women for men or achievement</li> <li>•Has solid friendships with other Demeter women</li> <li>•Can foster dependency in others</li> </ul>	<ul style="list-style-type: none"> <li>•Not typically ambitious, intellectual or competitive</li> <li>•Takes courses that are geared toward the helping professions</li> </ul>	<ul style="list-style-type: none"> <li>•Drawn toward "traditionally feminine" jobs - teaching, social work, nursing</li> <li>•Helping people to get well or grow satisfies and motivates Demeter</li> <li>•Maternal energy may be directed toward a leadership position</li> <li>•Energy given to the job may result in her own needs going unmet</li> <li>•Need to nurture may limit her ability to confront an incompetent employee or employers may expect her to continually give</li> <li>•Nurturing may lead to "Burnout"</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>HESTIA</b> <u>Jungian Type:</u> Definitely introverted Usually Feeling Usually Intuitive 3 Dominant	<ul style="list-style-type: none"> <li>•Significance found in rituals Symbolism by fire. Symbol is a circle</li> <li>•Symbolizes continuity, relatedness and common identity</li> <li>•Has a sense of intactness, wholeness</li> <li>•Has a focused consciousness</li> <li>•Is not distracted by need for others or needs of others when focused on interest</li> <li>•Looks <u>inwardly</u> and <u>intuitively</u> to sense what is going on</li> <li>•Becomes in touch with her own values through understanding personal values</li> <li>•Inner perspective provides clarity</li> <li>•Seeks tranquillity in solitude</li> <li>•Inner harmony is derived from centring on and accomplishing everyday tasks</li> <li>•Ego is not on the line</li> <li>•The spiritual centring and connectedness with others is the paradox of the self that Hestia emanates</li> <li>•Has an "old soul" quality that bespeaks wisdom and tranquillity</li> <li>•Needs to develop a persona and assertiveness</li> </ul>	<ul style="list-style-type: none"> <li>•Enjoys solitude</li> <li>•Provides a sanctuary where people are bonded together into a family, a place to come home to</li> <li>•Stays out of or above intrigues or rivalries</li> <li>•Not attached to people, outcomes, possessions, prestige, power</li> <li>•Quiet, unobtrusive person</li> <li>•Creates an atmosphere of warmth and peaceful order</li> <li>•Her home is a quiet, ordered, peaceful sanctuary</li> <li>•Does not engage in gossip or intellectual or political discussions</li> <li>•Listens with a compassionate heart, stays centred in midst of turmoil</li> </ul>	<ul style="list-style-type: none"> <li>•Mediation activates and strengthens this introverted inwardly focused archetype</li> <li>•May produce poetry when in a deep "state of grace"</li> <li>•Excess where stillness and patience is required</li> </ul>	<ul style="list-style-type: none"> <li>•"Participates in time" vs. schedules or puts in time which is psychologically nourishing</li> <li>•Finds an unhurried peaceful absorption with each task</li> <li>Is the "stillpoint" that gives meaning in midst of outer chaos and disorder</li> <li>•Is not competitive</li> <li>•Does not want power</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>HERA</b> <u>Jungian Type:</u> Usually Extroverted Usually Feeling Usually Sensation 1 Dominant	<ul style="list-style-type: none"> <li>•Has markedly positive and negative attributes</li> <li>•An intensely powerful force for joy or pain</li> <li>•Has compelling inner need to be a mate in a committed relationship</li> <li>•Has compelling outer needs to be recognized as husband and wife</li> <li>•Feels pain at being restricted or humiliated</li> <li>•Work is what she does not who she is</li> <li>•Is highly susceptible to jealousy</li> </ul>	<ul style="list-style-type: none"> <li>•Being with husband is most important activity</li> <li>•Does not have a best friend</li> <li>•Drops women friends when has a steady relationship</li> <li>•Finds unattached women potentially threatening</li> <li>•Socializes as a couple</li> <li>•Activities are engaged around husbands profession</li> <li>•Attracted to competent successful men</li> </ul>	<ul style="list-style-type: none"> <li>•Must consciously and repeatedly align herself with other Goddesses to grow beyond the role of wife, being half of the whole in order to find wholeness in herself</li> <li>•Needs to channel intensity of feelings into creative work (e.g., painting, writing, pottery)</li> </ul>	<ul style="list-style-type: none"> <li>•Work is a secondary aspect of her life</li> <li>•Subordinates her career to her husbands</li> <li>•Career is marriage</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<p><b>PERSEPHONE</b></p> <p><u>Jungian Type:</u></p> <p>Usually introverted Usually Sensation</p> <p>Represents two archetypal patterns:</p> <p><b>1. Kore The Archetypal Maiden</b></p> <p><b>2. Queen of the Underworld - Guide to underworld</b></p>	<p><b>1. Kore - The Archetypal Maiden</b></p> <ul style="list-style-type: none"> <li>•Predisposed to be acted upon by others versus acting on her own</li> <li>•Compliant, passive</li> <li>•Uncommitted</li> <li>•Eternal adolescent</li> <li>•"All things to all men"</li> <li>•The "anima" woman in Jungian terms</li> <li>•Unconsciously conforms to whatever others expect of her</li> <li>•Positive aspects: Youthfulness, vitality, potential for new growth, openness and flexibility and receptivity</li> <li>•Subjectively determines preferences</li> <li>•Cannot state her reasons as senses what to do inwardly and cannot explain herself logically</li> </ul> <p><b>2. Queen of the Underworld</b></p> <ul style="list-style-type: none"> <li>•Receptive to the unconscious</li> <li>•Has the ability to move back and forth between the ego-based reality of the "real" world and the unconscious or archetypal reality of the psyche as a result of experiencing depression/ psychosis, analysis, interpretation of dreams and images</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to be receptive</li> <li>•Evokes maternal response in peers and older women</li> <li>•Unassertive and youthful with men</li> <li>•Powerless feeling and dependency on others may result in the development of deviousness, lying, manipulation</li> <li>•May become narcissistic and lose capacity to relate to others</li> </ul>	<ul style="list-style-type: none"> <li>•Imaginative</li> <li>•Cautious by nature</li> <li>•Observes first - joins in later</li> <li>•Needs to imagine doing something before doing it</li> <li>•If pressured, does what pleases another rather than resist</li> <li>•If pressured, becomes passive</li> <li>•Needs to be provided with a variety of experiences vs. being pushed.</li> </ul>	<p><b>As Kore:</b></p> <ul style="list-style-type: none"> <li>•May remain a professional student</li> <li>•Tends to have a series of jobs</li> <li>•Does not do well with jobs requiring persistence, initiative, supervisory skills</li> <li>•Does well if has a boss to please</li> <li>•Procrastinates on long assignments</li> </ul> <p><b>As Queen:</b></p> <ul style="list-style-type: none"> <li>•Enters a creative, psychological, or spiritual field</li> <li>•Is highly individual</li> <li>•Unorthodox and deeply personal</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>APOLLO</b> <u>Jungian Type:</u> Usually Extroverted Usually Thinking Usually Intuitive Future 2 Dominant 1 Auxillary	<ul style="list-style-type: none"> <li>•Observes and acts from a distance</li> <li>•At home in realm of intellect, will, mind</li> <li>•Has a hidden and dark aspect</li> <li>•Favours thinking over feelings</li> <li>•Distance over closeness</li> <li>•Upholder of law and order</li> <li>•Is certain about what ought to be</li> <li>•Idealist</li> <li>•The far-distant one</li> <li>•Has feelings of isolation from others</li> <li>•Periodically disappears into another world</li> <li>•May be midlife crisis waiting to happen</li> <li>•Creature of habit and order</li> <li>•Is not clear about expression of feelings (paradoxically if interpreted wrong withdraws further)</li> <li>•Own positive self becomes major causality of his cruelty to others</li> <li>•Left brain functioning, "I think therefore I am"</li> </ul>	<ul style="list-style-type: none"> <li>•Relationship with men: brotherly</li> <li>Attracted to independent, competent women</li> <li>•Withdraws rather than fights</li> <li>•If humiliated and dominated by someone, exercises his nasty/cruel side</li> <li>•Shows no mercy when defeats a rival</li> <li>•Punishment creative and cruel and venomous</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to set goals and reach them</li> <li>•Appreciates clarity and form</li> <li>•Precepts: Know thyself, nothing in excess</li> <li>•Drawn to master a skill</li> <li>•Prefers objective assessment over subjective intuition</li> <li>•Values laws of cause and effect</li> <li>•Favours achieving recognition</li> <li>•music associated with clarity and purity</li> <li>•Uncomfortable with chaos</li> <li>•Sees experience as a spiritual lesson</li> <li>•Ability to see rationally and spiritually</li> <li>•Traditional classroom promotes Apollo's values and characteristics</li> <li>•Curious inquisitive</li> <li>•Drives to achieve</li> <li>•Often has mentors to advance career</li> <li>•Thinks in a linear way</li> </ul>	<ul style="list-style-type: none"> <li>•Attributes lead to success in a patriarchy</li> <li>•Values order and harmony</li> <li>•Sets realistic targets</li> <li>•Has a sense of future time</li> <li>•Lacks driving ambition to consolidate power and rule</li> <li>•Predisposes men to be part of a team effort</li> <li>•Comfortable being second in command</li> <li>•Finds it natural to work and compose with competent women</li> <li>•Ideal organization man</li> <li>•If work is not gratifying it becomes a problem</li> <li>•Value relationships with older men</li> <li>•Negotiate well, deliver what is promised</li> <li>•Will stay dissatisfied and chronically depressed rather than move</li> <li>•Avoids entanglements</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>ZEUS</b> <u>Jungian Type:</u> Usually Extroverted Usually Thinking Both Intuition and Sensation Present and Future 1 Dominant 1 Auxillary	<ul style="list-style-type: none"> <li>•Conscious attitude, a perspective that exacts control, reason and will</li> <li>•Primary meaning comes through establishing a realm</li> <li>•Emotional distance allows him to make difficult decisions that affect others adversely</li> <li>•Considers his perspective superior</li> <li>•Is often out of touch with his own sensuality and emotion</li> <li>•Growth only occurs after humility or vulnerability is experienced</li> <li>•Doesn't waste time dwelling on the past</li> </ul>	<ul style="list-style-type: none"> <li>•Natural leader</li> <li>•Uses old boys network well</li> <li>•Not interested in egalitarian relationships with women</li> <li>•Wants a woman to do what he expects and otherwise not bother him</li> <li>•Men are the players that matter</li> <li>•Membership is important to him</li> </ul>	<ul style="list-style-type: none"> <li>•Decisive</li> <li>•Benefits by being given practical things to think about</li> <li>•Learns well in groups, is pragmatic not an idealist</li> <li>•Nature and nurture needed to reinforce him               <ul style="list-style-type: none"> <li>- Mentor (Father)</li> <li>- Nurturing (Mother)</li> </ul> </li> <li>•However bright is not an intellectual</li> </ul>	<ul style="list-style-type: none"> <li>•Ability to use power</li> <li>•Strategist and alliance maker</li> <li>•Aware of both the big picture and the particular important detail</li> <li>•Works co-operatively with other powerful men</li> <li>•Is decisive</li> <li>•With each transaction he forges his alliances and consolidates his position</li> <li>•Authoritarian</li> <li>•Likes capitalism</li> <li>•Has the ability to negotiate and come to agreements</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<p><b>DIONYSUS</b></p> <p><u>Jungian Type:</u></p> <p>Either Extra or Introverted Definitely Sensate</p> <p>Immediate Present/Timelessness</p>	<ul style="list-style-type: none"> <li>• Regularity and constancy foreign to him</li> <li>• Mediates between the invisible and physical worlds</li> <li>• Focus is on the moment</li> <li>• Loses awareness of time</li> <li>• At one with nature</li> <li>• Characterized by opposing tendencies and extremes</li> <li>• Wants his world to be filled with sensual experiences</li> <li>• Has high and low swings</li> <li>• Midlife crisis may go on for years</li> <li>• Self-esteem problems can result from: a moralistic, puritanical society that negates him <u>or</u> from repressing the archetype</li> <li>• May lack constancy of self-perception</li> <li>• May struggle with opposites Rapture/destruction Passion/Coldness Immediacy/Distance</li> <li>• Needs to confront his unconscious non-ego and overcome fear of devouring feminine and find a person with whom to have a committed relationship (i.e., to overcome psychological difficulties)</li> </ul>	<ul style="list-style-type: none"> <li>• Rescues and restores women</li> <li>• May feel intimately related to women and prefer their company</li> <li>• Openness to be moved by what happens between people or inside self in respect to events</li> <li>• Pays attention to emotional cues</li> <li>• Usually surrounded by women</li> <li>• Sensuality and appreciation of beauty draws women</li> <li>• Shares interests, confidence and depth of friendship with women</li> <li>• Out of step with most men</li> <li>• Paradoxically may have close male friends with whom can converse deeply/appreciate creative arts/or is opposite to him</li> </ul>	<ul style="list-style-type: none"> <li>• Appreciation of sensory experience</li> <li>• Passionate intensity</li> <li>• Love of nature</li> <li>• Playful</li> <li>• Developing competency that takes years of training goes against grain</li> <li>• Successful in creative spheres</li> <li>• Can evolve into a man with depth and maturity who stays intense and integrates his ecstatic and creative moments</li> </ul>	<ul style="list-style-type: none"> <li>• Does not commit himself to long-term goals</li> <li>• Is absorbed with current passion</li> <li>• Lacks concern with success</li> <li>• Not attracted to a competitive career or academic world or ideas</li> <li>• Achieving power and prestige not meaningful</li> <li>• Too much of an individual to be a team player</li> </ul>



GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>HEPHAESTUS</b> <u>Jungian Type:</u> Definitely Introverted Definitely Feeling Definitely Sensate  Present	<ul style="list-style-type: none"> <li>•Creates and makes beautiful things thus giving from to his deeply felt and inarticulate psyche</li> <li>•Is devalued by the Greek Gods and current day society who value intellect and power</li> <li>•Expresses his feelings through work</li> <li>•Is the wounded healer, he could not be beautiful so he made beauty</li> <li>•Sees himself as intact and functioning through his work</li> <li>•Intense and introverted</li> <li>•Feels he is an outsider</li> <li>•Not motivated by outer demands to conform or live up to other's standards</li> <li>•Needs to develop attitudes within that support and validate what he does</li> </ul>	<ul style="list-style-type: none"> <li>•Is a peacekeeper</li> <li>•Admires women who are intelligent, assertive and/or beautiful</li> <li>•Not a fraternity brother</li> <li>•Repelled by superficiality</li> <li>•Resists force</li> </ul>	<ul style="list-style-type: none"> <li>•Creative capacity to see and make beauty</li> <li>•Skilled with hands</li> <li>•Withdraws into solitude to create</li> <li>•Absorbed by work</li> <li>•Dedicated to work</li> <li>•First must discover work he loves</li> <li>•Then have the opportunity to develop the skills to do it and do it</li> <li>•Inner directed</li> </ul>	<ul style="list-style-type: none"> <li>•Artisan/Craftsman</li> <li>•Surgeon/Architect</li> <li>•Passionate intensity for work</li> <li>•Corporate world is foreign and meaningless</li> <li>•Needs the influence or another God within or another person to represent his work to others</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>HERMES</b> <u>Jungian Type:</u> Usually Extroverted Definitely Intuitive Usually Thinking Aware of Past, Present, Future 1 Dominant	<ul style="list-style-type: none"> <li>•Is known as a "trickster", clever and cunning and seen as hero or charming sociopath</li> <li>•May see self as the undergod, the "younger brother" struggling for position which he attains through verbal excellence</li> <li>•Acts spontaneously</li> <li>•Always on the move acts swiftly and gracefully</li> <li>•Creative</li> <li>•Not aware of boundaries</li> <li>•Values freedom</li> <li>•Seeker of meaning</li> <li>•Centres on the soul and the mysteries of death and afterlife</li> </ul>	<ul style="list-style-type: none"> <li>•Friendly, communicative</li> <li>•Communicator of meaning</li> <li>•Acts as a guide to others between conscious and collective unconscious</li> <li>•Rescues children in danger and adults from depression</li> <li>•Opens up moments of discovery and synchronistic events</li> <li>•Commitment and intimacy do not come easily</li> </ul>	<ul style="list-style-type: none"> <li>•Capacity to understand meaning</li> <li>•Ability to think and act quickly</li> <li>•Thinks creatively</li> <li>•Excellent problem solver</li> <li>•Seeks for meaning and transformation in experience</li> <li>•Has an attitude of exploration and oneness in new situation</li> <li>•Does not naturally work for grades or approval</li> <li>•Does well with a mentor who has Zeus or Apollo characteristics</li> </ul>	<ul style="list-style-type: none"> <li>•Concerned whether a ploy will work <u>not</u> if it is illegal or wrong</li> <li>•Functions well as "messenger," diplomat, commerce, public media</li> <li>•Does not do things "by the book"</li> <li>•Inventive generalist with an entrepreneurial attitude</li> <li>•Opportunist</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>HADES</b> <u>Jungian Type:</u> Definitely Introverted Definitely Sensation Timeless 1 Dominant	<ul style="list-style-type: none"> <li>•Rich inner world of images</li> <li>•Detached</li> <li>•Realm of the personal and collective unconscious</li> <li>•Key that can connect the inner and outer world is having an interest that grows out of his inner experience develop into an occupation</li> </ul>	<ul style="list-style-type: none"> <li>•May lead life as a reclusive</li> <li>•Feels like a loner</li> <li>•Does not need to be "one of the boys"</li> <li>•Has his own inner strength so is not a victim</li> </ul>	<ul style="list-style-type: none"> <li>•Requires other Gods characteristics to learn in our world - Apollo, Hermes and Zeus</li> </ul>	<ul style="list-style-type: none"> <li>•Requires other characteristics to function in work world (e.g., Hermes and Hades may result in film making, literature, hospice work, Theology)</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>POSEIDON</b> <u>Jungian Type:</u> Either Extroverted or Introverted Definitely Feeling Past and Present	<ul style="list-style-type: none"> <li>•Has access to feelings</li> <li>•Has access to the unconscious: emotions and memories and the collective unconscious</li> <li>•Noted for anger and destructiveness and quieter more peaceful moods</li> <li>•Can be merciful</li> <li>•Seeks power but lacks impersonality and strategic thinking</li> <li>•Thus can be humiliated to which he reacts in anger</li> <li>•Harbours grudges</li> <li>•Settles accounts, eye for an eye</li> <li>•Feels deeply and intensely</li> <li>•If introverted, masks the feelings and harbour s them</li> <li>•If extroverted, is expressive and demonstrative</li> <li>•Poseidon is Zeus's shadow</li> </ul>	<ul style="list-style-type: none"> <li>•Loyal</li> <li>•Patriarchal attitude</li> <li>•Emotionally powerful and domineering</li> <li>•Does not do well with career women or professionals</li> <li>•Emotional vs. rational</li> <li>•Reactions are negatively responded to</li> </ul>	<ul style="list-style-type: none"> <li>•Not orderly</li> <li>•Does not manage time well</li> <li>•School doesn't interest him</li> <li>•Logic escapes him</li> <li>•Dislikes repetitious work</li> <li>•Attitudes lie in nature, plants, animals, weather, people</li> <li>•Needs to develop other Gods characteristics to succeed in today's world</li> <li>•To succeed, needs to think of consequences, become objective, achieve some distance</li> </ul>	<ul style="list-style-type: none"> <li>•Enjoys sports, especially water sports</li> <li>•Finding work that matters to him in an industrial and corporate world is difficult</li> <li>•Has difficulty with authority</li> <li>•May be poet, composer, psychologist, dancer, artist</li> </ul>

GOD/GODDESS	SELF	RELATIONSHIPS	LEARNING	WORK
<b>ARES</b> <u>Jungian Type:</u> Definitely Extroverted Definitely Feeling Definitely Sensate  Immediate Present	<ul style="list-style-type: none"> <li>·Reactive</li> <li>·Here and now</li> <li>·In touch with his feelings and body</li> <li>·Aggressive and impetuous</li> <li>·No concern for consequences</li> <li>·Uncontrolled, irrational</li> <li>·Passionate and intense</li> <li>·Lacks thinking and rationality idealized by the Greeks</li> <li>·Unappreciated in a patriarchal world</li> <li>·Repressed Vs. cultivated</li> <li>·Often scapegoated and abused</li> <li>·Requires Hermes and Apollo to develop</li> <li>·Also can call on Athena for help</li> </ul>	<ul style="list-style-type: none"> <li>·Fiercely protects those he chooses to side with</li> <li>·Gravitates to women who are spontaneous, physical and affectionate</li> <li>·Works well on teams with men</li> <li>·Can be abusive</li> </ul>	<ul style="list-style-type: none"> <li>·Requires firm loving approach</li> <li>·Prefers short term projects, prefers activity</li> <li>·Not interested in deep conversation or philosophy</li> <li>·Has difficulty going by the book and following rules and principles</li> <li>·Needs to develop the art of reflection so alien to him</li> </ul>	<ul style="list-style-type: none"> <li>·Excels in sports</li> <li>·Assertive, active</li> <li>·Does not think before he reacts</li> <li>·Drawn to action and intensity</li> <li>·Enjoys using tools</li> <li>·Likes working with others</li> <li>·Does not fit into corporate hierarchy</li> <li>·Can excel in the military</li> <li>·Aggression limits success if not controlled</li> <li>·Likes taking risks</li> <li>·Works best on a team composed of men particularly fraternities</li> </ul>

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 1	IT	Hestia	✓	Lives in inner world of thoughts and ideas, not dependent upon experience or others, concerned with developing new ideas, theories, and models, prefers logical analytical thinking, makes decisions on basis of organized, systematic analysis, ideas based on shadowy images and unconscious forces is in clarity and organization, thinking is rational, analytical, impersonal, interested in theory, good at formulating questions, defining problems, organizing ideas, discovering underlying principles, not easily influenced in plans or conceptions, can think through how best to perform and convince, ideal for teaching in higher education, preference is instructor-centred organized teaching.
	(ES)		✓	Orientates self by concrete facts and actual experiences, masters objective reality, punctual, neat, brings realism and practicality to group. Absorbs and remembers immense number of facts, brings out detail, easy going, notices specifics and detail, followers at ease, appreciates knowledge gained by experience, enjoys working with young or higher education, comfortable with group process, enjoys guiding students.
			✓	Symbolizes continuity, relatedness, shared consciousness and common identity, has sense of intactness, wholeness, looks inwardly to understand what is going on, becomes in touch with her own values through understanding personal values, inner perspective provides clarity, seeks tranquillity in solitude, inner harmony is derived from centring on and accomplishing everyday tasks, ego not on line, "old soul" quality that bespeaks wisdom and tranquillity, provides a sanctuary where people bind together. Stays out of intrigues or rivalry, creates an atmosphere of warmth and peaceful order, listen with a compassionate heart, centred amidst turmoil, participates "in time" vs. scheduled is the still point that gives meaning, does not want power.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 2	IT		✓	Lives in world of inner thoughts and ideas, not dependent on others, concerned with developing and presenting new theories and models, prefers the logical and analytical, makes decisions based on organized, systematic analysis, strength is in clarity and organization not persuasion, indifferent to others opinions, thinking is rational analytical, impersonal and inward directed, not easily influenced in plans or conceptions, good at logical analysis, conclusions, judgements, good leader in tough situations, valued for contributions and judgements, preference is instructor centred, directed, organized teaching.
	(ES)		✓	Brings realism and practicality to group, absorbs and remembers an immense number of facts, action oriented, concentrates on facts, brings out details, well adjusted to daily organizational life, well informed, appreciates knowledge derived from experience, generally agrees with plans and objectives, enjoys working with young in practical field, enjoys guiding students.
		Hades	✓	Rich inner world of images, detached, comfortable in realm of personal and collective unconscious, does not need to be "one of the boy's," has own inner strength is not a victim.
		(Zeus)	✓	Emotional distance allows him to make difficult decisions, can be out of touch with own sensuality and emotion, natural leader, decisive, benefits by being given practical things to consider, is pragmatic, has ability to use power, strategist and alliance maker, works cooperatively with powerful men, authoritarian.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 3	EN	Athena	✓	Seeks to discover new outlets, has insight into what is hidden, emerging, beginning, becomes bored with routine, stimulated by novel problems, tracks down causes, perceives relationships among problem elements, able to persuade others of possibilities, good leader when situation complex, novel, new, can present vision convincingly, vision can lead to "directing" others.
	(ET)		✓	Governed by intellectual consideration and conclusions, gathers information from world, reflects on it, and judges how to behave, judges according to strong principles and ideals, justice and truth important, prefers logic and order, confident of self, excess in problem solving in groups, can be impersonal, interested in what happens in organization, will try to have as much influence as possible, thrives on demanding tasks, excels at traditional functions, planning, organizing, controlling, decision making, concerned with immediate experiences, fair, just, practical.
			✓	Logical woman, ruled by head, intact, realistic pragmatic attitude, sensible, defender of patriarchal rights and values, lives within golden mean, intellectual defenses keep her from feeling pain, practical, uncomplicated, confident, forms strong alliances with men, father's daughter, enjoys being in midst of male action and power, can unconsciously intimidate others, ability to think well and problem solve, prefers activities that require purposeful thinking, values rational thinking, accepts established norms that guide behaviour, strategy, practicality, tangible results are hallmarks of her particular wisdom, develops good tactics in midst of conflict, thrives in business, academic arenas, knows "bottom line," diplomatic, knows what game is and how to score points, coolly assesses unexpected hostility or deception, can spot winners, excellent timing instincts.



PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 4	ES	Zeus	✓	Lives real life to the fullest, pays attention to all things in environment, good food, beautiful people, possessions, meanings. Have little patience with the abstract, masters objective realism, punctual, neat, has strong sense of reality based on fact, brings realism and practicality to group, action oriented, easy going, not judgemental, little inclination for reflection, thrives on work, notices specifics and detail, appreciates knowledge derived from experience as opposed to theory, lively capacity for enjoyment which is contagious comfortable with group process, not interested in theories for their own sake, preferred teaching style is with real experienced and real objects, well adjusted to daily organizational life.
	(EF)		✓	Enjoys harmony with others and environment, enjoys being with others and agreement, smooths out conflicts, creates an atmosphere of warmth and harmony, quick to determine what situation needs and adjust to it, appreciated by others, sensitive to others, relates well to others, creates cooperative and competitive atmosphere, makes decisions quickly, follows and enforces group norms, consults with others frequently, involves others in decisions, guided by organization standards and values.
			✓	Conscious attitude, perspective that exerts control, reason, and will, natural leader, uses old boys network well, membership important, decisive, benefits by being given practical things to think about, learns well in groups, pragmatic, bright but not intellectual, ability to use power, strategist and alliance maker, aware of the "big picture" and important details, works cooperatively with other powerful men, authoritarian, has ability to negotiate, with each transaction forges his alliances and consolidates his position.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 5	EN		✓	Constantly envisions new possibilities, seeks to discover new outlets, has insight into what is hidden, emergent, beginning, attitude of expectancy, little patience with here and now, enters new situations with intensity and enthusiasm, won't let go until all possibilities explored, bored and trapped with routine, kindles enthusiasm in others, stimulate by difficult and novel, tracks down causes, ability to persuade others, intuitive about others, inspires courage and enthusiasm in others, good leader in difficult situation, presents vision convincingly, brings enthusiasm intensity - possibility to teaching situation, prefers an interactive style, works best with new subjects, workshops, and difficult teaching situations.
	(EF)		✓	Enjoys harmony, agreement with others, smooths conflicts, logic that contradicts feelings is unacceptable, quick to determine what situation needs and adjusts to it, appreciated by others, sensitive to others, relates well with others, creates a cooperative, competitive atmosphere, makes decisions quickly, consults with others frequently prefers interaction, prefers "getting to know student" when teaching.
		Artemis	✓	Independent feminine spirit, sense of intactness, one-in-herself sense of worth based on who she is and what she does at one with self and nature. Active vs. passive, non-traditional, strength to express own views, consciousness is focused and achievement oriented, protects those who appeal for help, demands equality, has a sense of affiliation with other women, relationships with women: sisterly, men: perseverance, concentrates intensely, penchant for exploration, acts swiftly and decisively, does not need masculine approval, unconstrained by what ought to be, competitive with men. Aides women in childbirth.
		(Demeter)	✓	Maternal, generous, giving, nurtures others, drawn to traditionally feminine jobs - nursing.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 6	ES		✓	Lives real life to the fullest, pays attention to all things in environment, good food, beautiful people, possessions, fashion, parties, sports, meetings, orientates self by concrete facts, actual experiences, masters objective reality, punctual, neat, life of party, enjoyment has a special morality, brings realism and practicality to group, action oriented, brings out detail, easy going, thrives on work, notices specifics and details, well-informed, followers feel at ease, appreciates knowledge derived from experience over theory, enjoyment is contagious, comfortable with group process, experiential style promoted by Dewey is preferred, enjoys guiding students.
	(IT)		✓	Lives in inner world of thoughts and ideas, not dependent on others experience or tradition, concerned with developing and presenting new ideas, enjoys working on theories and models, makes decisions based on organization and systematic analysis, strength in clarity and organization, thinking is rational, analytic, impersonal, good leader in tough situation, can think through how best to perform and convince, emphasis on creation, integration and organization of theory.
		Aphrodite	✓	Never victimized, never suffers, lives in immediate present, youthful attitude, lust for life, consciousness is focused <u>and</u> receptive, has magnetic attraction and rapport, empathetic, not critical, genuinely momentarily involved, always a little in love with whomever or whatever is focused on, attentiveness is seductive, ability to enjoy pleasure, beauty, creative, comes alive in relationships, symbolizes creative, transformative power of love, relaxed, tremendous force for change, prefers the arts, nurtures vision and creativity, prefers jobs that are interesting and well paying. Often "vision carrier" for men.
		(Athena)	✓	Ability to strategize, think rationally, excellent timing instinct, thrives in business and academia.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 7	EN	Apollo	✓	Constantly envisions new possibilities, seeks to discover new outlets, has insight into hidden, emergent, beginning, attitude of expectancy, little patience with the here and now, enters new situations with intensity and enthusiasm, won't let go of situation until all possibilities explored, bored and trapped with routine, brings out best in others, stimulated by novel and difficult, able to persuade others, intuitive about others, inspires courage and enthusiasm in others, good leader in complex situations, leads on basis of sheer intensity of vision, style is "contagious, prefers interactive style, vision can lead to directing others.
	(IT)		✓	Not dependent on others, enjoys creating theories and models. Ideas based on shadowy images, needs solitude (at times), thinking is rational, analytical, impersonal.
			✓	At home in realm of intellect, will, mind, favours thinking over feeling, upholder of law and order, is certain about what ought to be, idealist, can have feelings of isolation from others, occasionally disappears into another world, may be middle life crisis waiting to happen, creature of order, Relationships with men are "brotherly," attracted to independent, competent women, withdraws rather than fights, ability to set goals and reach them. Appreciates clarity and form, is drawn to master a skill, prefers objective assessment, favours achieving recognition, likes music associated with clarity and purity, uncomfortable with chaos, traditional classroom promotes Apollo's values and characteristics, curious, inquisitive, drives to achieve, thinks in a linear way, attributes load to success in a patriarchy, values harmony, has sense of future time, comfortable with being second in command, avoids entanglements, if work not gratifying can be a problem.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 8	EN		✓	Constantly envisions new possibilities, seeks to discover new outlets, has insight into what is hidden, emerging, beginning, attitude of expectancy, little patience with here and now, enters new situations with enthusiasm, won't let go until all possibilities explored, brings best out of others, kindles others with enthusiasm, stimulated by difficult and novel, perceives relationships amongst elements, able to persuade others, intuitive about others, good leader when task complex, interactive style with others, loses interest when no possibilities, best teaching in higher education: if flexible and changing.
	(IT)		✓	Not dependent upon others, concerned with developing new ideas, enjoys working with theories and models, prefers logical and analytical, makes organized, systematic decisions, ideas based on shadowy images, needs solitude, thinking is rational, analytical, ideal for teaching higher education.
		Athena	✓	Logical, ruled by head, intact, realistic and pragmatic attitude, sensible, defender of traditional male power, confident, practical, forms strong alliances with men, fathers daughter, enjoys being in male company, can be confident/companion without being erotic with men, thinks well and purposefully, values rational thinking, enjoys learning objective facts, can be logical, dispassionate observer, ability to strategize, knows bottom line, organization comes naturally.
		(Demeter)	✓	Is generous, gives bountifully, nurtures others, attends to others physical, emotional and spiritual needs, supportive of others. Has solid friendships with other Demeter women. Drawn toward traditionally feminine jobs - teaching and nursing, helps people to get well and grow, own needs may go unmet as energy given to job.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 9	EN		✓	Constantly envisions new possibilities, seeks to discover new outlets, has insight into what is hidden, emerging, beginning, attitude of expectancy, little patience with here and now, enters new situations with enthusiasm, won't let go until all possibilities explored, bored and trapped with routine, kindles enthusiasm in others, stimulated by novel, able to persuade others, intuitive about others, style is "contagious," prefers an interactive style, works best with advanced learners and in higher education, visions can lead to directing others, loses insight when the possibilities run out, inspires courage.
	(IT)		✓	Not dependent upon others, concerned with developing and presenting new ideas, enjoys working with theories and models, makes decisions on organized, systematic analysis, has strength in clarity and organization, needs solitude, thinking is rational, analytical, impersonal, good leader in tough situations, ideal for higher education teaching.
		Athena	✓	Logical, ruled by head, realistic, pragmatic attitude, lives within golden mean, practical, confident, forms strong alliances with men. Attracted to powerful men (in power positions), ability to think well and purposefully, values rational thinking. Enjoys planning, mastery, has patience, can be dispassionate observer, explains things clearly and well, ability to strategize, has good tactics in midst of conflict, knows "bottom line" diplomatic, coolly assesses unexpected, excellent timing instinct.
		(Demeter)	✓	Maternal, generous, gives bountifully, nurtures others, supportive of others, drawn to traditionally feminine roles - teaching and nursing, enjoys helping people grow, may not meet own needs as attends to others and job.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 10	IT		✓	Lives in inner world of thoughts and ideas, not dependent on experience, tradition, others, concerned with developing and presenting new ideas, theories and models, prefers the logical and analytical, makes decisions based on organized, systematic analysis, strength is in clarity and organization not persuasion, needs solitude, thinking is rational, analytical, impersonal, inward directed, lives in world of ideas(?), good at formulating questions, defining problems, organizing ideas, good leader in tough situations, ideal for teaching in higher education.
	(EN)		✓	Constantly envisions new ideas, has insight into hidden, emergent, beginning, attitude of expectancy, becomes bored and trapped with routine, stimulated by difficult and novel, tracks down causes, intuitive about others, inspires courage and enthusiasm in others, prefers interactive style of leadership, best teaching higher education.
		Apollo	✓	Observes acts from a distance, at home in realm of intellect, mind and will, favours thinking over feeling, upholder of law and order idealist, the far-distant one, periodically disappears into another world, creature of habit and order, relationships with men-brotherly, attracted to independent, competent women, withdraws rather than fights, ability to set goals and reach them, appreciates clarity and form, precepts: know thyself and nothing in excess, drawn to master a skill, uncomfortable with chaos, sets experiences as a spiritual lesson, thinks linearly, drives to achieve, values harmony, succeeds in a patriarchy, sets realistic targets, negotiates well, delivers what is promised, avoids entanglements.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 11	IF   (ES)		✓	Lives in quiet inner world of own values, visions, feelings, has inner intensity others do not see, "still waters run deep," enjoys solitude, strong sense of self-containment, constant readiness for peace and harmony, devoted loyal group member if task is something believed in, decisions of others and external facts do not influence, little desire to influence others, prefers to be inconspicuous, inwardly feel deeply about tasks and people, happiest working with small children or learners with special needs, preferred style is working intensely with small groups, outward demeanour of harmony and sympathy.
			✓	Pays attention to all things in environment, good food, beautiful people, possessions, orientates self to concrete facts, masters objective reality, punctual, neat, brings realism and practicality to group, absorbs and remembers intense number of facts, brings out detail easy going, does not generate conflict, thrives on work, well-informed, generally agrees with plans and objectives, ideally involved with experiential learning (Dewyian) comfortable with group process.
		Hestia	✓	Symbolizes continuity, relatedness, shared consciousness, has sense of intactness, wholeness, focused consciousness, looks inwardly, seeks tranquillity in solitude, stays out of rivalries, home is a quiet, peaceful, ordered sanctuary, listens with a compassionate heart, centred in midst of turmoil, is "still point" that gives meaning.
		(Aphrodite)	✓	Lives in immediate present, youthful attitude, receptive and focused intelligence, has magnetic attraction and rapport, empathetic, not critical, genuinely, momentarily involved, always a little in love with whom or whatever involved in, sparks creativity, enjoys pleasure, relaxed.



PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 12	IT  (EN)		✓	Lives in inner world of thoughts and ideas, not dependent on experience, tradition or others, concerned with developing and presenting new ideas, enjoys working with theories and models, prefers logical and analytical, makes decisions based on organized, systematic analysis, ideas based on shadowy images and unconscious forces, strength in clarity and organization, indifferent to other's opinions, needs solitude, strong inner principles, rational, analytical thinker, not out to win appreciation of others, valued for contribution and judgement, can think through how best to perform and convince, ideal for higher education.
			✓	Constantly envisions new ideas, seeks to discover new outlets, has insight into what is hidden, emerging, beginning, attitude of expectancy, won't let go until all possibilities explored, brings out best in others, stimulated by novel and different, tracks down causes, perceives relationships among elements, intuitive about others, can inspire courage and enthusiasm in others, good leader when situation is complex, comfortable with interacting and orchestrating, best in higher education as teacher.
		Athena	✓	Logical ruled by head, intact, pragmatic attitude, practical, uncomplicated, confident, ability to think well and purposefully, values rational thinking, can be dispassionate observer, ability to strategize, develops good tactics amidst conflict, knows bottom line, diplomatic, coolly assess unexpected.
		(Demeter)	✓	Maternal, generous, nurtures others, very supportive to others, status not important, helps people get well or grow, maternal energy (could be) directed toward leadership.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 13	IT  (EN)		✓	Lives in inner world of thoughts and ideas, not dependent on experience, tradition or others, concerned with developing new theories and models, prefers logical and analytical, makes decisions based on organized systematic analysis, ideas based on shadowy images and unconscious forces, strength is in clarity and organization not persuasion, indifferent to other's opinions, needs solitude, good at formulating questions, defining problems, organizing ideas, not out to win appreciation of others, not practical, ideal for teaching in higher education, emphasis on creation, integration and organization of theories, effective with small groups of learners over time.
			✓	Constantly envisions new ideas, seeks to discover new outlets, has insight into what is hidden, emergent, beginning, attitude of expectancy, bored and trapped with routine, stimulated by difficult and novel, tracks down causes, searches for emergent, good leader in complex, novel or new situation, preferred style is interactive, best teaching in higher education.
		(Apollo)	✓	Idealist, the far-distant one, periodically disappears into another world, withdraws rather than fights, appreciates clarity and form, can set goals and reach them. Drawn to master a skill, prefers objective assessment, lacks driving ambition to consolidate power and rule, negotiates well.
		Hermes	✓	Creative, values freedom, seeker of meaning, centres on the soul, friendly, communicator of meaning, guide to others between conscious and unconscious, opens up moments of discovery, thinks creatively, seeks for meaning and transformation in experience, excellent problem solver, has an attitude of exploration and oneness with situation, does not do things by the book, inventive generalist with an entrepreneurial attitude, aware of past, present, future.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 14	EN		✓	Constantly envisions new possibilities, seeks to discover new outlets, has insight into what is hidden, emerging, beginning, unconscious is actively creative, seizes and shapes vision, attitude of expectancy, little patience with here and now, enters new situations with intensity and enthusiasm, won't let go until all possibilities explored, feels trapped and bored with routine, brings out best in others, tracks down causes, aims to discover possibilities, intuitive about people, can influence people and persuade, inspires courage and enthusiasm in others, prefers an interactive style, works best in teaching with advanced learners in higher education, comfortable with "orchestrating" action, good leader in complex situations, vision can "direct others."
	(EF)		✓	Enjoys harmony and agreement with others, holds culturally accepted values and traditions, quick to determine what situation needs and adjusts to it. Appreciated by others, sensitive to others, creates cooperative atmosphere, agreeable, warm, friendly, tactful, conforms to established norms, people oriented, consults with others frequently, prefers interaction.
		Artemis	✓	Independent feminine spirit, sense of intactness, one-in-herself, self-confident, sense of worth based on who she is and what she does, at one with self and nature, active vs. passive, courageous, non-traditional, does not hide abilities, protects those who appeal for help, demands equality, has sense of affiliation with other women, relationships with women: sisterly, men: brotherly, loyal to others, ability to set and achieve goals, focused goals, achievement and competition important, penchant for exploration, acts swiftly and decisively, does not need masculine approval.
		(Demeter)	✓	Maternal, nurtures others, supportive of others, helps people grow, and get well.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 15	EN  (IT)	Athena	✓	Stimulated by the novel, tracks down causes, intuitive about others, inspires courage, bored with routine, enjoyed complex problems in group, interactive with others, works best advanced learners orchestrates well.
			✓	Not dependent upon others, enjoyed discussing new ideas, makes decisions on basis of organized, systematic analysis, needs solitude at times, not easily influenced in plans or conceptions, ideal for higher education.
			✓	Logical and ruled by head, intact, invulnerable, realistic, pragmatic sensible adult, defender of patriarchal rights and values, lives within golden mean, intellectual defenses keep from feeling pain, practical uncomplicated, unselfconscious, confident, forms strong alliances with men, fathers right hand and woman, champions individual male hero's, companion/confident without becoming erotic, ability to think well and solve practical problems, prefers activities that require purposeful thinking, needs mentor to get ahead, accepts established norms, likes learning objective facts, explains things clearly, ability to strategize, good tactics in midst of conflict, knows bottom line, knows what game is and how to play, coolly assess unexpected hostility, timing excellent, spots winners.
		(Demeter)	✓	Is maternal, gives bountifully, outward directed, nurturers others, very supportive of others, not competitive with men or women for achievement, has solid friendships with Demeter women, drawn towards traditionally feminine jobs - social work, helps people to grow and get well, need to nurture may limit ability to confront.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 16	ES		✓	Lives real life to the fullest, pays attention to things in environment, good food, beautiful people, possessions, fashion, parties, meetings, orientates self by concrete fact, actual experience, has little patience with the abstract, masters objective reality, punctual, neat, brings realism and practicality to group, remembers and absorbs an immense number of facts action oriented, brings out detail, easy going, does not generate conflict, well adjusted to daily organizational life, appreciates knowledge gained from experience vs. theory, ideally involved in experiential learning (Dewyian), comfortable with group process.
	(EF)		✓	Enjoys harmony with others, smooths conflicts, creates warm, harmonious atmosphere, hold culturally accepted values and traditions, logic that contradicts feeling is unacceptable, quick to determine what situation needs and adjusts to it, appreciated by others, relates well to others, agreeable, tactful, warm, friendly, empathizes and sympathizes, follows and reinforces group norms, conforms to established norms, prefers interaction.
		Hera	✓	Intensely feels joy and pain, compelling inner need to be in a committed relationship, compelling outer need to be recognized as "husband and wife," feels pain if rejected or humiliated, attracted to competent, successful men, activities are around husband's profession, socializes as couple, needs to channel intensity of feelings into creative work, work is secondary, career is marriage.
		(Artemis)	✓	At one with nature, goal oriented in workplace.

PERSON	TYPE	ARCHETYPE	A/D	CHARACTERISTICS
# 17	IS	Hestia	✓	World is based on "what is" and "what happens," aware of small details, more in tune with own perceptions of reality than others and prefers quiet arrangements and routines, sense of accomplishment when details taken care of, greatest strength is sensitivity to people and objects, prefers inner world so may have difficulty establishing relationships, practical, realistic, factual, may see things others do not see due to rich inner life, not readily convinced is wrong, can feel isolated in a group and become silent, reserved, frequently sees things differently, works well with small groups of learners where goals are concrete skills (technical, library science, introductory science courses), effective facilitating individualized instruction.
	(IF)		✓	Lives in quiet inner world of own values and visions and feelings, has intensity others do not see, "still waters run deep," enjoys solitude, seldom expresses self, capable of warmth and enthusiasm, if believes in task is devoted loyal group member, decisions of others and external facts do not influence them, little desire to influence others, happiest working with young children or learners with special need, prefers working with small groups, outward demeanour of harmony and sympathy, feels with intensity.
			✓	Symbolizes continuity, shared consciousness, common identity, sense of intactness and wholeness, focused consciousness, in touch with own values by understanding personal values, inner perspective provides clarity, ego is on line, enjoys solitude, provides sanctuary where people bond, stays out of or above intrigue, rivalry, gossip, not attached to people, outcomes, possessions, power, prestige quiet and unobtrusive, listens with a compassionate heart, centred in midst of turmoil, is not competitive, participates "in time" not on schedules, still point that gives meaning in midst of chaos and disorder.

## Voice and Type

### Silent Group

AGE MEMBER	JUNGIAN TYPE	ARCHETYPE
25+	ES/EF	Hera
35+	IT/ES	Hades/Zeus
25+	IT/EN	Apollo
25+	IF/ES	Hesta/Aphrodite
35+	IT/ES	Hestia
35+	EN/EF	Artemis/Demeter
35+	EN/EF	Artemis/Demeter
35+	IS/IF	

### Vocal Group

AGE MEMBER	JUNGIAN TYPE	ARCHETYPE
35+	EN/IT	Apollo
35+	ES/IT	Aphrodite
35+	EN/IT	Athena/Demeter
35+	IT/EN	Mixed
25+	EN/IT	Artemis

### Less Vocal Group

AGE MEMBER	JUNGIAN TYPE	ARCHETYPE
35+	EN/ET	Athena
35+	ES/EF	Zeus
25+	IT/EN	Athena
35+	EN/IT	Athena

## APPENDIX L

Course Outline - Introduction to Adult Education



**BROCK UNIVERSITY - FACULTY OF EDUCATION****Course 5P23 - Introduction of Adult Education  
Fall 1992, McMaster Campus**

Welcome to the course. I hope that over the semester, we will share some good times and some great learning experiences.

The main text for the course is:

Cranton, P. (1989). Planning instruction for adult learners. Toronto: Wall and Thompson.

This text will be supplemented by other readings.

**Objectives**

Upon completion of 5P23, learners will:

1. Have defined and described adult education and the various contexts in which it takes place;
2. have knowledge of the theoretical framework within which adult education resides;
3. have discussed various approaches to adult development and related these to their own lives and experiences;
4. have described the characteristics of adults as learners, including psychological type, learning style and self-directedness;
5. have applied a model of working towards self-directed learning to their own experiences as educators and learners;
6. have discussed the process of transformative learning in adult education;
7. have written objectives for/with adult learners;
8. have implemented procedures of sequencing instruction;
9. have chosen appropriate methods and materials for given objectives;
10. have developed a learning contract and at least one evaluation technique for an adult education setting;
11. have developed a procedure for assessing the effectiveness of an educational experience;
12. have analyzed and assessed their own learning and development in the area of adult education.

**Student Responsibilities for each class**

1. You are expected to complete the assigned readings.
2. There will be in class exercises that will require the cooperation and participation of all.
3. Participation is an important component of adult education. It is strongly suggested that students attend class in order to obtain the maximum benefit from this learning experience.

### Evaluation - Assignments

To give you an idea of what is appropriate, I am suggesting the following evaluation choices. They are open for discussion and revision and most anything else you may wish to include would be acceptable.

#### Choice of the Following:

1. A theoretical position paper on some topic related to adult education that is of interest to you. You might want to take a theory of adult education, summarize and critique it and apply it to a practical situation.
2. An annotated bibliography of material related to a particular topic in adult education.
3. A journal of your thoughts and feelings related to what you have read, what happened in class or how it relates to life in general. (This journal could be handed in to me for comments if you wish. If you choose to do this I would ask that you give it to me at the first class of the week and it will be returned at the last class in the week. The first instalment should be handed in at the first class in July - summer term).
4. A critical review of a piece of literature on adult education.
5. A class presentation on an adult education topic. This may be done individually or in groups. (Time - approximately 30 min.)
6. Create a visual aid (overhead, graph or chart) which depicts a model of adult learning or teaching and which could be shared with the class.
7. Micro-teaching - You may want to try out a new lesson using the principles of adult education on the class for feedback.
8. A learning task of your choice.

#### Responsibilities of the Instructor:

I will:

- a) be here for you as a guide and a resource person;
- b) ensure that our physical requirements are met;
- c) be available to help you with your assignments and provide feedback as you request it;
- d) invite guest speakers or use videos when it is appropriate;
- e) with your assistance evaluate this course

## COURSE OUTLINE

<u>Session</u>	<u>Topic</u>	<u>Resources</u>
Sept. 14	Introductions to the course and each other	
Sept. 21	Theoretical framework	Reading: Handout & Text Ch.1 Philosophical Framework
Sept. 28	Theories of adult dev't	Reading: Tennant, Ch.4 Learning Style Inven.
Oct. 5	Characteristics of adult learners	Ch.2; results of PET
Oct. 19	Role of the adult educator	Reading: Text Ch.8 Brookfield article Knowles Videotape
Oct. 26	Working towards self- directed learning	Handout SDLRS
Nov. 2	Transformative Learning	Reading: Mezirow Case studies
Nov. 9	Objectives & adult learners Critical Incidents	Reading: Text Ch.3 Brookfield article
Nov. 16	Sequencing instruction	Reading: Text Ch.4
Nov. 23	Methods & materials	Reading: Text Ch. 5
Nov. 30	Evaluating adult learning	Reading: Text Ch. 6
Dec. 7	Assessing instructional effectiveness Summary & integration Evaluation of this course	Reading: Text Ch.7

## Planning an Evaluation Contract

Evaluation is a "tricky" business in adult education. The truly self-directed learner engages in self-evaluation, and that should be our goal or ideal as both learners and educators. Most individuals, at least initially, are intimidated by complete self-evaluation -- all of our previous experiences lead us to wanting some expert to judge our learning. Hence, even Malcolm Knowles suggests that self-evaluation be validated by some second party.

Therefore, for this course, you will develop learning contracts which you will use as a guide in your learning. The following steps will aid in the process.

### Preplanning

Think about what it is that you want to learn in this course in terms of:

- a) What do you need to know about?
- b) What would you like to do better?
- c) What do you need to feel differently about?

Take a few minutes to answer these questions

### Establishing Objectives

An objective is a statement about what a learner will be able to do at the end of a learning period that s/he could not do before.

Keeping in mind what you said in the preplanning, write the objectives that you have for yourself to attain in this course. Once they are recorded, ask yourself these questions for each objective:

1. Is the objective relevant?
2. Is it feasible?
3. Is it measurable?

### Producing Evidence of having met your Objective

Decide on a piece of evidence to prove that you have met each objective. Choose learning resources that are appropriate to each piece of evidence (e.g., library, field trip). Once you have recorded your pieces of evidence and your learning resources ask yourself these questions:

1. Are the pieces of evidence appropriate to my objectives?
2. Are they realistic?
3. Are the learning resources suitable?
4. Are they attainable?

### Evaluation

For each piece of evidence answer these questions:

1. Would you like the evaluation to be formative - that is - would you like feedback on it as it progresses?
2. Who would you like to have validate each piece of evidence - a peer, the instructor, someone you work with?

3. What percentage of your final grade will each piece of evidence be worth? This is the one step that can be decided on when all pieces of evidence are complete. It is difficult to know how much effort you will put into each piece of evidence until it is complete

## REVISED COURSE OUTLINE

<u>Session</u>	<u>Topic</u>	<u>Resources</u>
Sept. 14	Introductions to the course and each other and each other	
Sept. 21	Theoretical framework	Reading: Handout & Text Ch.1 Philosophical Framework
Sept. 28	Theories of adult dev't	Reading: Tennant, Ch.4 Results of the PET
Oct. 5	Characteristics of adult learners, Self-directed learning	Ch.2; SDLRS Brookfield reading
Oct. 19	Role of the adult educator	Reading: Text Ch.8 Brookfield article Knowles Videotape
Oct. 26	Transformative Learning	Reading: Mezirow Case studies
Nov. 2	Objectives & adult learners Critical Incidents	Reading: Text Ch.3 Brookfield article
Nov. 9	Sequencing instruction Learning Style Inventory	Reading: Text Ch.4
Nov. 16	Methods & materials	Reading: Text Ch. 5
Nov. 23	Evaluating adult learning	Reading: Text Ch. 6
Nov. 30	Assessing instructional effectiveness Presentations	Reading: Text Ch.7
Dec. 7	Summary & integration Evaluation of this course Presentations	

## An Example of An Agenda

### Agenda Session 8

1. Residuals from last week?

I have one - I'd like to go back to our critical incidents now that we've had some time to reflect since the exercise itself. After discussing the exercise, I thought that we did not really examine assumptions, rather, we talked around them and discussed the incidents instead of the assumptions. Did others feel this way?

2. Results and discussion of the formative evaluations.

3. Discussion of Chapter 4.

4. Exercise on procedural analysis.

5. Exercise on sequencing instruction from an objective.

## APPENDIX M

### Participants



# Participants

	GENDER		AGE RANGE		STUDENT		SELF-DIRECTED LEARNING		PARTICIPATIVE METHODS	
	MALE	FEMALE	25 - 35	35 - 45	FULL-TIME	PART-TIME	YES	NO	YES	NO
1		✓		✓		✓	✓		✓	
2		✓	✓			✓	✓		✓	
3		✓		✓		✓	✓		✓	
4		✓		✓		✓	✓		✓	
5		✓		✓		✓	✓		✓	
6		✓		✓		✓	✓		✓	
7		✓	✓		✓		✓		✓	
8		✓	✓			✓	✓		✓	
9		✓		✓		✓	✓		✓	
10		✓	✓			✓		✓		✓
11		✓		✓	✓		✓		✓	
12		✓	✓		✓		✓		✓	
13	✓			✓	✓					
14	✓			✓		✓		✓		✓
15	✓			✓		✓	✓		✓	
16	✓		✓			✓		✓		✓
17	✓		✓			✓	✓		✓	
TOTALS	5	12	7	10	4	13	13	3	13	3

n = 17

Total number of students indicating gender, age range; student status: full or part-time; previous experience with self-directed learning; previous experience with participative methods.

## APPENDIX N

### Occupations of Students Participating in Course

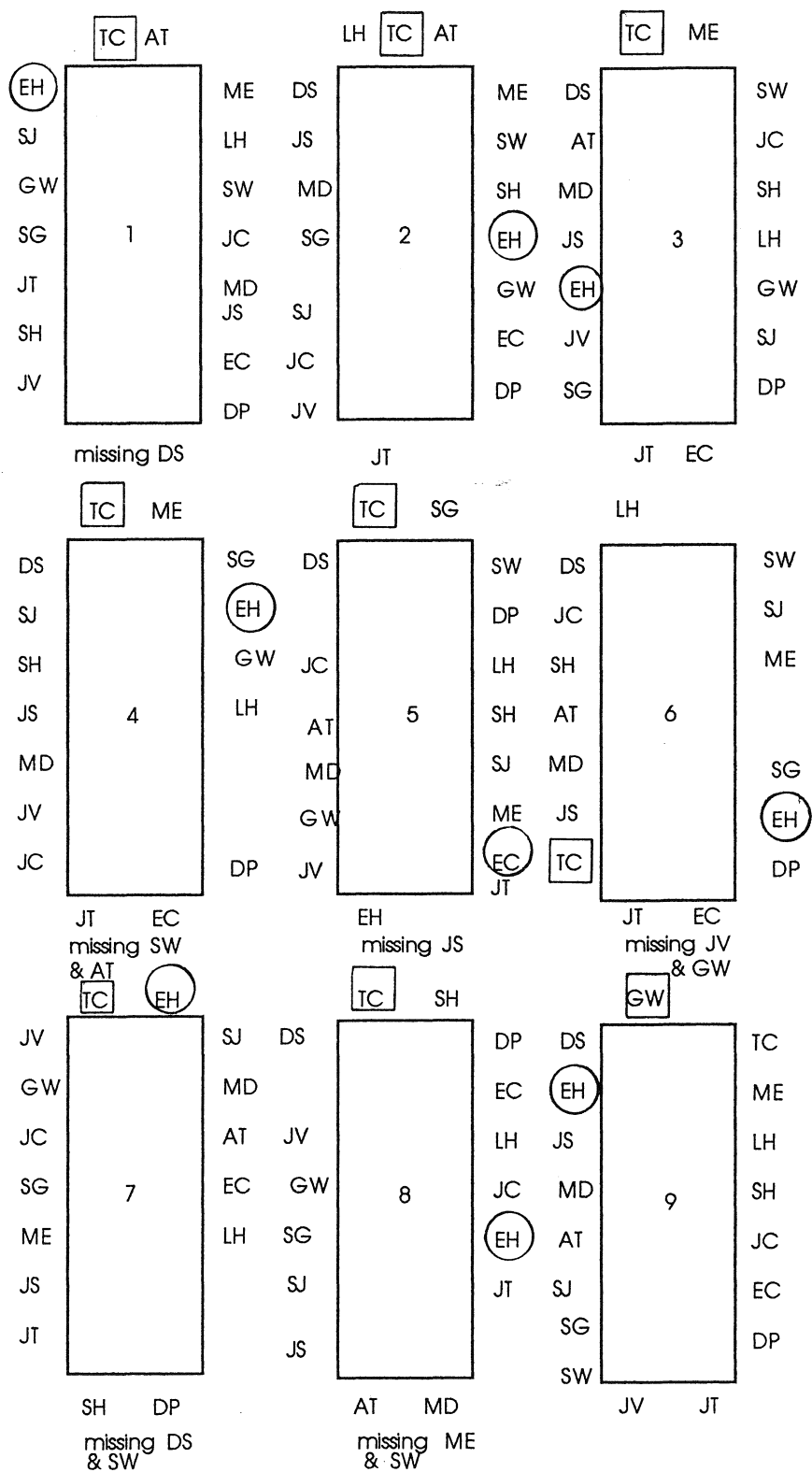
### Occupations of Students Participating in Course

GENDER		STUDENT STATUS		OCCUPATION					
Male	Female	Full-time	Part-time	Public School Teacher	Educator	Nurses Manager	Clinician	Occupational Therapist	Administrator
3	4	1	6	7					
2			2						2
	6	4	2		1	2	3		
	2		2					2	
5	12	5	12	7	1	2	3	2	2

n = 17

## APPENDIX O

### Pictogram Seating Arrangement



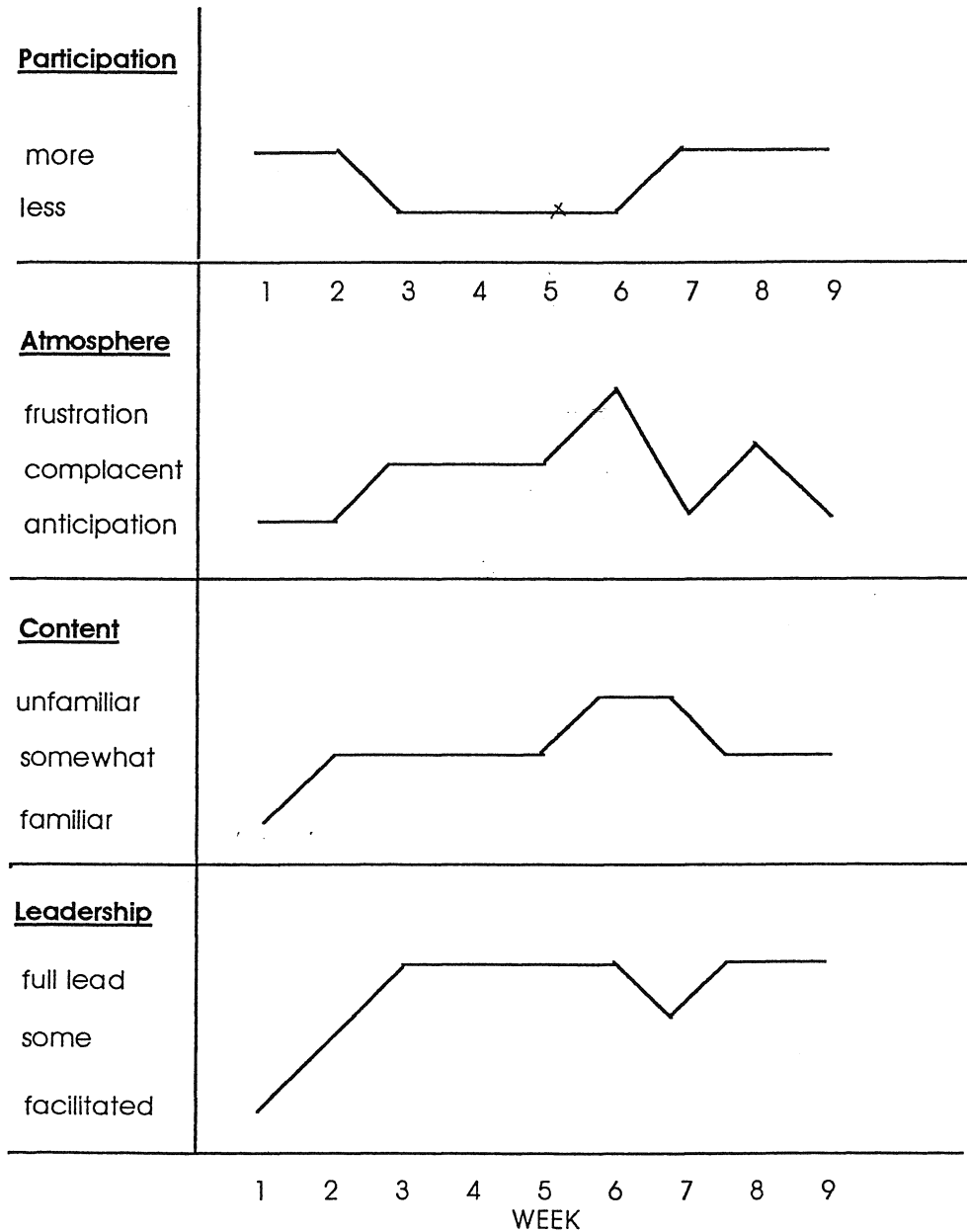
Legend:

□ emergent leader

○ educator

## APPENDIX P

Leadership Participation Atmosphere Content



Graphic depiction of association between type of leadership, familiarity of course content, atmosphere of the evening, and participation of the group on a weekly basis

Key: some - some leadership  
full lead - full leadership

somewhat - somewhat familiar

## APPENDIX Q

Course Content and Associated Activities in Classroom



### Course Content and Associated Activities in Classroom

WEEK	READINGS	TOPIC	SMALL GROUP WORK	INDIVIDUAL WORK
1	Nil	Adult education: General overview	Defining adult education. Who is an adult? What activities?	Psychological type test done
2	Cranton: Chp. 1. Principles of adult learning Merriam: Comprehensive theories of adult learning	Theoretical foundations Major Theorists Major divisions: Behaviourial, humanist, progressive, radical	Role playing: Assumed character of a major theorist then with 3 others develop a <u>unified</u> theory of adult education	Philosophy of education inventory
3	Tennant: Adult development	Developmental stage theories compared, contrasted, critiqued	Working in pairs determine your stage according to Chickering and Havighurst and discuss whether appropriate to yourself	Compared psychological type test results with profiles provided by instructor and with our view of ourselves
4	Cranton: Chp. 2. Considering the audience Brookfield: Exploring self-directedness in learning	Learner characteristics Defining self directed learning - What is it?	Exercise on self-directed learning (missed by researcher)	Learning style inventory: Field dependent/independent Self directed learning style assessment (Guglielmino)
5	Cranton: Chp. 8. Adult educators: Who are we? Brookfield: Some truths about skilful teaching Knowles: Videotape	Issues and conflicts in the life of an educator Themes for thought and reflection	Brainstormed roles of adult educators and classified according to Brookfield's 8 categories	Addressed questions raised on a sheet provided by instructor about Knowles video
6	Mezirow: How critical reflection triggers transformative learning	What is transformative learning and what does it involve?	4 groups reviewed 4 different case studies looking for assumptions underlying the study	Formative evaluation of course completed by each individual
7	Brookfield: Using critical incidents to explore learning assumptions Cranton: Chp. 3. Objectives	Transformative learning discussion continued How to write objectives domains of learning	Discussed worst experiences with a partner and identified underlying assumptions Divided group into learners and educators - wrote 3 objectives for a course designed for the learners	Briefly wrote notes about worst experience had in a group
8	Cranton: Chp. 4. Sequencing instruction	Instructional analysis: Task and procedural and alternative sequencing principles	Assembled "pieces" of a procedural analysis given to us Sequenced instruction from one of the objectives written during week 7's exercise	
9	Cranton: Chp. 5. Developing the instructional strategy Syinicki: The role model modified for classroom activities	Methods, material, characteristics of effective instruction Learning styles	Analyzed worst experience using principles in Chp. 5 with a partner Divided into groups with same style: Planned an instructional sequence using Kolb's model for a case provided	Think of worst educational experience, write it down Kolb learning style inventory

## APPENDIX R

Types of Classroom Activities and their  
Weekly and Overall Totals

# Types of Classroom Activities and their Weekly and Overall Totals

CLASSROOM ACTIVITIES	WEEK												OVERALL TOTALS
ACTIVITY	1	2	3	4	5	6	7	8	9	10	11	12	
<u>Large Group Discussion:</u>												S O C I A L	23
Course expectations and learning contracts	✓	✓											
Weekly Reading		✓	✓	✓	✓	✓	✓ x 2	✓	✓				
Discussion post small group work	✓	✓	✓		✓	✓	✓	✓	✓				
Student projects					✓				✓				
Formative evaluation discussion								✓					
Video (discussion of)						✓							
<u>Small Group Activities:</u>													12
Groups of 2	✓		✓				✓		✓				
Groups of 4	✓	✓		✓	✓	✓		✓ x 2	✓				
<u>Individual Exercises:</u>													11
Inventories	✓	✓	✓	✓ x 2					✓				
Preparation for small group week							✓		✓				
Formative evaluation						✓							
Summative evaluation												✓	
Video viewing and question sheet					✓								
<u>Student Presentations</u>										✓	✓		

## APPENDIX S

### Brock University Mission Statement

## MISSION STATEMENT

### PREFACE

**B**rock University, located on an attractive site in the Niagara Region of Ontario, was founded in 1964 as the direct result of local and provincial initiatives. Through Faculties of Business, Education, Humanities, Mathematics and Science, Physical Education and Recreation, and Social Sciences, Brock offers education in a wide range of undergraduate programs and in selected graduate programs. The University serves as a resource centre, supports life-long learning, and contributes to the intellectual, cultural, social and physical life of the community. It is the aim of Brock University to enhance its stature as a centre of teaching, learning, research and other creative activity.

### A. ACADEMIC FOCUS AND ENVIRONMENT

*It is the mission of Brock University:*

1. to provide a broadly-based liberal undergraduate education in the arts and sciences and in professional and inter-disciplinary programs and to offer graduate studies in selected disciplines.
2. to maintain excellence in teaching, scholarship and other creative activity as interconnected components of the University's responsibility.
3. to permit carefully planned growth in student enrolments and academic programs provided that sufficient additional resources are available to the University for such growth, and that any increase in the size of the University does not diminish those qualities that identify Brock's unique character. These include:
  - an emphasis on small classes and small-group learning in seminars, laboratories and studios to facilitate intellectual excitement, improved learning and academic interaction among students and between students, faculty and staff;
  - an open and accessible administration;
  - a unity of purpose among faculty and staff;
  - an atmosphere in which all members of the Brock community are treated with respect and valued as individuals.
4. to provide, through the conduct of the faculty, students and staff, and through its policies and administration, an atmosphere free from sexism, racism and all other forms of stereotyping, harassment, and discrimination.
5. to provide academic programs and a learning environment of the highest quality to attract academically qualified and gifted students.
6. to enhance existing programs while developing additional innovative and relevant programs, at both the undergraduate and graduate level for full-time and part-time students.

7. to develop the library, computing and other resources to support research, creative activity and learning.
8. to develop a campus with the academic space, facilities, and amenities, both indoor and outdoor, conducive to effective learning and scholarship.

## B. STUDENTS

### *It is the mission of Brock University:*

1. to prepare students for advanced study, career success, community responsibility and a richer life by developing a passion for life-long learning and the abilities to think creatively and critically, to communicate clearly, to maintain high ethical standards, to exercise sound judgment, and to address societal and environmental issues.
2. to foster an environment for students which encourages not only intellectual growth but also physical, social and spiritual well-being through a diversity of extra-curricular activities and experiences designed to enrich their lives, develop their talents and provide opportunities to discover and pursue new interests.
3. to facilitate accessibility for lower-income students, mature students, part-time students, students from visible minority groups, Canadian Native Peoples, international students, students with unrealized potential, and students with disabilities.
4. to foster a continuing commitment to the University among graduates.

## C. UNIVERSITY PERSONNEL

### *It is the mission of Brock University:*

1. to support, encourage and nurture faculty and staff in their pursuit of personal growth and professional development, recognizing that male and female career patterns may differ.
2. to encourage wide-spread participation of faculty and staff in policy formation.
3. to implement fair and progressive employment policies for all University personnel.

4. to achieve equality in the representation of women and men in both academic and non-academic positions.
5. to increase the number of people from visible minority groups, Canadian Native Peoples and those with disabilities, in both academic and non-academic positions.
6. to encourage and recognize the achievements and contributions of staff members to the service of the students and the aims of the University.
7. to encourage and support faculty members in their pursuit of excellence in undergraduate and graduate teaching and in research and other creative activity in their various fields.

## D. THE COMMUNITY

### *It is the mission of Brock University:*

1. to serve as a learning, cultural, artistic and recreational centre and co-operatively to address regional issues.
2. to welcome and support international students and faculty and to encourage exchange programs and collaboration with universities in other countries in order to promote international understanding and co-operation.
3. to serve the Niagara, Canadian and international communities by providing leadership and consultation on societal issues and concerns.

#### APPENDIX T

Mission Statements of the Graduate Department,  
Faculty of Education, Brock University

## MISSION STATEMENTS

The goals of the Graduate Department are threefold:

- to deliver a quality academic program offering that encompasses the major aspects of three areas of specialization;
- to engage in research activities that enhance our understanding of the teaching/learning, curricular or administrative processes;
- to provide service to the educational community on how best to conceptualize, plan, deliver and evaluate education.

As the only department in the Faculty of Education that is not essentially devoted to professional training, and without/a vested interest in the status quo, we should be autonomous pursuers of knowledge, operating within a system of collegial review.

### Impact on the Field

As a professional school, we wish to maintain connections to the teaching profession for the purpose of generating reform.

The program is designed to have a positive impact on the profession in five ways:

1. Students from the field will come to Brock and become part of a collaborative research culture.
2. Brock will strive to become a centre for the advancement of educational thought and practices that generates research, produces publications and initiates conferences.
3. By challenging graduate students to return to the field and apply their skills and knowledge to making their organizations more effective or to enrich their own professional practices; we hope to continue and extend the collaborative research culture.
4. As leaders in the field, the Faculty needs a visible presence in the field and will supply in-service training programs to practitioners and provide consulting services to individuals, groups and institutions.
5. By becoming a model organization for collegial and democratic deliberation and student empowerment, the faculty strives to



be at the cutting edge of educational theory and practise.

### Type of Student We Aim to Attract and Develop

#### Students:

- by providing quality academic programs and a research environment we seek to attract well qualified graduate students who will participate in a variety of professional growth activities.
- Brock should make extra effort to attract international students, students from visible minorities, and full-time graduate students, so that a variety of perspectives can be cultivated.

#### Student Development:

- to develop students who are reflective practitioners who are able to reconceptualize and reorganize educational practise.
- to challenge practising educators through generated questioning, and to develop student skills in order that they may answer their own questions leading to enlightenment.
- to prepare students for leadership roles and positions of added responsibility.
- to prepare students for entry into doctoral/advanced studies.

### Generating Reform and Challenging Educators

- by contributing to an ongoing critique of our profession
- by being involved in addressing societal problems
- by operating at the cutting edge of intellectual and moral issues in the field.
- by empowering educators and to provide them with the skills and knowledge to teach for empowerment of students.

#### APPENDIX U

Developmental Psychology: Women's Ways of Knowing

### Developmental Psychology: Women's Ways of Knowing

The developmental theory that is applied to understand the group experience within the context of, is the theory developed by Belenky, Clinchy, Goldberger, and Tarule (1986), "Women's ways of knowing: The development of self, voice, and mind." The theory is particularly informed by the work of psychologist Carol Gilligan (1982), physicist Evelyn Fox Keller (1983, 1985), psychologist Lawrence Kohlberg (1981, 1984), educator William Perry (1970), and philosopher Sara Ruddick (1984, 1987).

The theory is based on "extensive interviews with ordinary women living ordinary lives" (Belenky, et al, 1986, p. 4). Of 135 women interviewed, 90 were students from one of six institutions, 45 were from family agencies that deal with clients seeking information about parenting (p. 12). The theory traces the development of women through seven stages of development.

This theory was chosen in preference to other theories (Kitchener, 1983; Perry, 1970) as it fit most closely with the notion of integrating the assumptions of the Western tradition with development and with the actual class experience. The metaphor of voice was explored in depth as it moved from a position of silence to a place of being heard, the problem of voice was significant in the graduate class experience. This theory is also applied to teaching/learning situations in higher education.

Initially, the classroom experience was examined within the context of Perry's theory and Belenky et al's theory with the intent of discerning whether both men and women were fairly represented by the latter theory. On account of examining the class experience in terms of assumptions underlying the experience it was found that the experience of both men and women could be understood within the latter theory that discussed assumptions more extensively. The theory had also incorporated ideas from Kolberg's work and Perry's work, both of which were developed primarily from the male point of view, consequently the male voice was represented in the theory.

#### The Theory

The following is a brief description of each stage of the theory of women's ways of knowing (Belenky, Clinchy, Goldberger, Tarule, 1986).

#### Silence

At this stage there is little awareness of intellectual capacity. External authorities are seen as being all powerful and know the truth.

#### Received Knowledge

Listening is the way of knowing at this stage. The voices and words of other people are central to knowing. This is a dualistic stage of right and wrong, of talking and listening. A stage where studies repeatedly, but not consistently, find that the men talk and the women listen (p. 45). Who I am derives from definitions that others supply.

#### Subjective Knowledge: The Inner Voice

Truth at this stage emerges as personal, private, and subjectively known or intuited. Answers remain right or wrong however a multiplicity of perspectives about truth are recognized as being possible. The point of reference of truth has taken a revolutionary step from being external to being internal. At this transitional stage knowledge is grounded in the firsthand experience of others in a similar position to the learner.

#### Subjective Knowledge: The Quest for Self

This stage is accompanied by an increased experience of strength, optimism, and self-value. The predominant learning mode at this stage is one of inward listening and watching. Words to express something about the inner self that is so novel and new, and hidden from the public are difficult to find at this stage. Metaphors and images are used to try and depict the self. Watching and listening at this stage appears nonjudgemental and attracts others trust, an important skill that keeps

people related one to others. Talking to oneself is important, journals and diaries are often kept. Interactions are actively analyzed.

### Procedural Knowledge: The Voice of Reason

Truth is recognized as not being immediately accessible, it lies beneath the surface and must be ferreted out. Conscious, deliberate, systematic, analysis is engaged in. Knowing how is central to this stage of knowing. The emphasis is on procedures, skills, and techniques for obtaining and communicating knowledge. The world becomes more manageable. This procedural knowledge is more objective than subjective. Objects in the external world are paid attention to.

### Procedural Knowledge: Separate and Connected Knowing

The terms separate and connected describe two different concepts or experiences of the self. The separate self is autonomous or separate from others and relationships are thought of in terms of reciprocity. The connected self is essentially connected to others and experienced in terms of responsiveness.

#### Separate Knowing

People in academic studies most frequently demonstrate separate knowing. At the heart of separate knowing is critical thinking or the doubting game. Separate knowers are tough-minded and dispassionate. Amongst women, even for able separate knowers argument is not a preferred way of reasoned discourse. The loss of voice is common, especially when separate knowing is the only voice allowed and just beginning to emerge. Separate knowers often use their voices to defend themselves against authority. Separate knowers speak a public language. The self is suppressed in separate knowing.

#### Connected Knowing

Connected knowing is built on the subjectivist's conviction that the most trustworthy knowledge comes from personal experience. Connected knowers develop procedures for gaining access to other people's knowledge. Connected knowers are interested in the circumstances leading to perceptions. They are interested in the facts of other people's lives and their ways of knowing, as it is still a procedural type of knowledge that is sought. Connected learners learn through empathy, begin with an attitude of trust, and are non-judgmental. They, in Noddings terms, "let the object act upon them, seize them, direct (their) fleeting thoughts...letting go of (their) attempts to control" (p. 117). The mode of knowing is personal but the object of knowing may not be.

### Constructed Knowledge: Integrating the Voices

#### Reclaiming the Self

This stage is characterized by an effort to reclaim the self and integrate knowledge that is felt intuitively and is personally important with knowledge learned from others. "All knowledge is constructed and the knower is an intimate part of the known" (p. 137). Ultimately constructivists understand that answers to all questions vary depending on the context in which they are asked and on the frame of reference of the person doing the asking.

Assumptions about knowledge are continually being evaluated and reevaluated by the constructivist.

#### Experts and Truth

Experts for the constructivist must reveal an appreciation for complexity and have a sense of humility about their knowledge. Constructivists are challenged by conflict and contradiction. They investigate and search for truths across disciplines. Unlike procedural knowers who are subservient to disciplines and systems they put systems to their own service. They make connections to tie knowledge together. There is an emphasis on a never-ending search for truth and a never-ending quest for learning.

#### Passionate Knowing

The heart and mind are joined in the quest for knowing. Self-awareness assists them in setting the ground rules for interaction and in self-definition.

The outer bounds of consciousness are stretched to include the conscious and the unconscious, the self is consulted, the unsaid is voiced, others are listened to. The constructivist imagines him/herself inside the poem, person, or idea that is desired to be known. Constructivists become passionate knowers who enter into a union with that which is to be known. Passions and intellect are woven

together. Attentive caring is important to knowing. Communion and the language of intimacy exist between the knower and the known.

**Real Talk**

Constructivists share ideas together vs. the didactic talk of reporting. Ideas are explored, questioned, argued, listened to, talked about, shared. The ideal speech act occurs (see appendix C). Domination is absent, cooperation and reciprocity predominate in conversations. Doubting is replaced with believing.

## APPENDIX V

The Transformative Process: The Researcher

### The Transformative Process: The Researcher

"Failure of existing rules is the prelude to a search for new ones..." (Kuhn, 1962, p. 68). The puzzle of why interdisciplinary teams in health care tend to be dysfunctional started me on a course to look for new "rules" for teamwork. Little did I expect in the course of the search to have "all the rules" that framed my reference of thinking challenged and set upside down...but that is what precisely happened.

An introduction to Dr. Cranton, Mezirow, and Freire all occurred within a three month period. In that short span of time I was not only introduced theoretically to new ideas that challenged the entire edifice upon which I structured my world, I was introduced to them practically in Dr. Cranton's classes. The situation brings to mind the one aptly described by Einstein, "It was as if the ground had been pulled out from under one, with no firm foundation to be seen anywhere, upon which one could have built" (Kuhn, 1962, p. 83).

Mezirow (1990b) and Brookfield (1990, 1991) talk about the blurring of usual frameworks and the sense of the "ground falling away" when student assumptions are challenged. They warn about the period of ambiguity that exists between the "deconstruction" of the edifice and the "reconstruction" of a new one. They talk about the need to support students through this period and suggest methods for reflection and critical thinking that eventually bring clarity to the situation. I experienced all that was described. Dr. Cranton provided support, a listening ear, a guiding comment, a new concept or question to consider, and truly entered into the situation in an "I-Thou" way as described by Martin Buber (Kaufmann, 1970). This entailed many hours of counsel, discussion, and commenting upon my journal writing on the part of Dr. Cranton.

### The Deconstructive Phase

What was challenged? My entire approach to thinking and acting, teaching and managing was challenged. This involved rethinking about how situations and relationships were created. My thinking was linear. The search was for causes and effects, and for "the answer". There was an expectation to be directed and to direct (Freire, 1985, 1990). Although there was a preference for teamwork and decentralized organizations, there was a mindfulness of position and authority and a silent acceptance of distorted ideas that were recognized. I was largely unaware of unconscious social forces that ruled, exploited, objectified, and manipulated life until my encounter with Freire, Mezirow, Habermas and Brookfield (1990, 1991) and the associated discussions in Dr. Cranton's classes.

What did I learn? Basically, I became aware of the fact that my thinking was framed and reinforced primarily by Cartesian-Newtonian assumptions. Medical and nursing standards and expectations that were compiled with on a daily basis reflected Cartesian-Newtonian thought. Quantitative research results that primarily directed nursing and medical practice were built upon the Cartesian-Newtonian paradigm (Lincoln and Guba, 1985).

Cartesian-Newtonian assumptions were reinforced by the bureaucratic organization and the "bureaucratic mind" that impinged on the lifeworld (see appendix C). The role of the expert (Schön, 1983) that was depended upon for decision making in the bureaucracy promoted dependent thinking as opposed to independent critical thinking that would challenge paradigm assumptions or distorted and ineffective personal and social assumptions.

My dominant psychological type, the extroverted intuitive (see appendix H) and archetype, Artemis (see appendix I) participated in the entire transformative process I found myself in. The extroverted intuitive personality type that is always "envisioning new possibilities and seeking new outlets" was partly responsible for the search for new ways to consider teamwork.

The archetype Artemis and the psychological type both have a "penchant for exploration" and a "high tolerance level for ambiguity". These functions were invaluable for the transformative process as ambiguity is high especially through the deconstructive phase when assumptions are being challenged and broken down. The exploratory function and the focused consciousness characteristic of the type and archetype assisted in the reconstructive phase where the search for new assumptions and a new frame of reference is being established.

The disadvantage of the type and archetype is becoming bored with a project once all the avenues have been explored. The magnitude and depth of the transformative process experienced

is not complete, boredom has not set in and perhaps will never set in, in view of the following assumptions.

#### **Assumptions: Transformation Process**

1. The world is always in a process of completing itself
  2. The quest for knowledge is endlessly self-revising all truths and assumptions must be continually subjected to direct testing
  3. Ambiguity about the future is a condition of nature
- source (chapter 2)

#### **The Reconstructive Phase**

Excursions into my inner world using Progoff techniques have greatly enabled understanding the old assumptions and recognizing their value and place in the world and the need to balance them with new assumptions that are becoming increasingly more apparent at the end of this century, and more apparent to me after the review of Western history and development.

The idea of integrating the "soft" and "hard" scientific assumptions has been developed over the last half of this century. Jung's work emphasizes the importance of opposites and the synthesizing of opposites. Progoff and Stenger's work with dissipative structures also sends the message that both time and eternity, chance and necessity, and being and becoming are important. Western history clearly demonstrates that the most productive and creative times in history have emerged when synthesis of opposites has occurred.

Understanding how new assumptions such as those of quantum mechanic physics, dissipative structures, constructivism are more appropriate for understanding "open systems" than the old assumptions has been helpful. But most important has been the understanding of the need to synthesize old and new. This task has been a much more difficult one. Often it seemed easier to abandon the old for the new, such a task would be much less complex. Such a response reflects Either/Or thinking whereas synthesis reflects Both/And thinking a more difficult but rewarding way to consider matters.

The reconstructive phase is by no means complete. Recognition of assumptions, old and new continues now on a daily basis. However, the meaning of assumptions and how to effectively apply new understanding often remains a puzzle. Simple recognition does not change ingrained attitudes and behavior.

Mezirow advocates that the transformation process is not complete until one can act upon the new assumption. The transformation process reflects the claim that understanding, interpretation, and application are all moments of the single process of understanding (Bernstein, 1983, p. 145).

Mezirow's transformation theory includes the importance of "practical discourse" the discussion and weighing of claims, the importance of being open to the various ways of thinking about and understanding a situation, the importance of discussion that leads to consensus that permits acting in solidarity and apply the new understanding of the assumption and its consequence. The concept of practical discourse reflects Bernstein's notions of practical discourse in "Beyond Objectivism and Relativism" (1983), which reflects the thoughts of Gadamer, Habermas, Arendt, and Rorty. The final moment of understanding "application" often necessitates practical discourse.

At this stage in my thinking I realize that there is value in identifying and articulating assumptions underlying Western thought. With further clarity I realize these assumptions need to be exposed to "practical discourse". They need to be discussed from many points of view to understand their depth, breadth, and consequences and to recognize assumptions that have not been identified and that are perhaps embedded more deeply in our society and thinking.

The strength in discussing the issues together would be the advantage of co-learning and the co-learning would strengthen the possibility of acting and thus changing. Considering our interdependence, the fact that we are constructing reality together, completing the transformation process by "acting" presupposes "practical discourse" and "acting together in solidarity".



### Implications of the Transformation Process for the Study

The focus on assumptions underlying the Western mind has determined the direction that the entire project has followed, the search for assumptions. Further, the process has been completely interactive.

Assumptions recognized in the literature stimulated seeing them in practical reality in the group. The group phenomena punctuated assumptions that prompted seeing them in the literature. The realization of my own assumptions and those I wished to understand also influenced what was seen in the group.

The limitation of one person's point of view was emphasized by the process. One person's point of view seemed insufficient, collaboration was recognized as a necessary ingredient of this kind of research process. However collaboration was limited as a result of the research being done independently.

Questions remain, "What other assumptions influenced the experience?" "Are there assumptions more deeply embedded and what are they?" "How do assumptions link into the transformative process?" "What other important aspects of the experience were made 'uncertain' or entirely missed by focusing so intensely on assumptions?"